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On the edge of wilderness: A review of wildlife recreation and motorized access on the western rim of Hells Canyon

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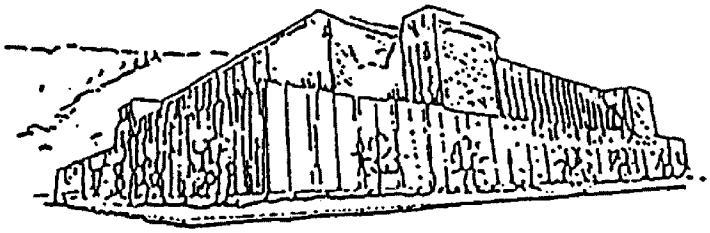

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Date May 1, 1998

On the Edge of Wilderness

A Review Of Wildlife, Recreation And Motorized Access On The Western Rim Of Hells Canyon

By

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of the requirements for the degree of
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Abstract

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On the Edge of Wilderness: A Review of Wildlife, Recreation and Motor Vehicles on the Western Rim of Hells Canyon

Director: Tom Roy

In Oregon as in much of the west, natural resource issues are surrounded by tension and aggravated by opposing views and values. Recent debates such as owls vs. jobs, rivers vs. gold, dams vs. fish, have not only divided communties, but have intensified the discussion about the human place in nature. In the Hells Canyon region of Eastern Oregon where public land comprises nearly seventy percent of the area, motorized access to public land is also a significant issue. How much motorized access can be permitted, while still protecting the natural resources of an area? This paper will address this question by focusing on the western rim of Hells Canyon.

The Hells Canyon National Recreation Area Act directed that the area be administered to provide recreation opportunities compatible with preservation of "rare combinations of terrestrial habitat and rare combinations of outstanding and diverse ecosystems." The western rim of Hells Canyon is critical habitat for numerous wildlife species and is an ecologically signifcant component of the Greater Hells Canyon Ecosystem.

Currently, motor vehicle access is permitted on thirty-eight miles of the fifty mile western rim, with many unauthorized "two-track" roads that not only bisect critcal habitat, but are also illegally inside the Wilderness boundary. Furthermore, there is currently a push for increased access on the rim that would require moving a Wilderness boundary to accomodate a road. This paper will verify that in order to protect the unique ecological features on the western rim and to comply with the stated management directions for the Recreation Area, motorized access on the western rim should be reduced.

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Maps and Figures

Acronyms and Abbreviations

CMP- Comprehensive Management Plan

CORR- Committee to Open the Rim Road

DEIS- Draft Environmental Impact Statement

EA- Environmental Assessment

EIS- Environmental Impact Statement

HCNRA- Hells Canyon National Recreation Area

HCPC- Hells Canyon Preservation Council

NEA- Native Ecosystem Alternative

NEPA- National Environmental Policy Act

ODFW- Oregon Department of Fish and Wildlife

OHA- Oregon Hunters Association

PETS- Proposed, Endangered, Threatened, Sensitive

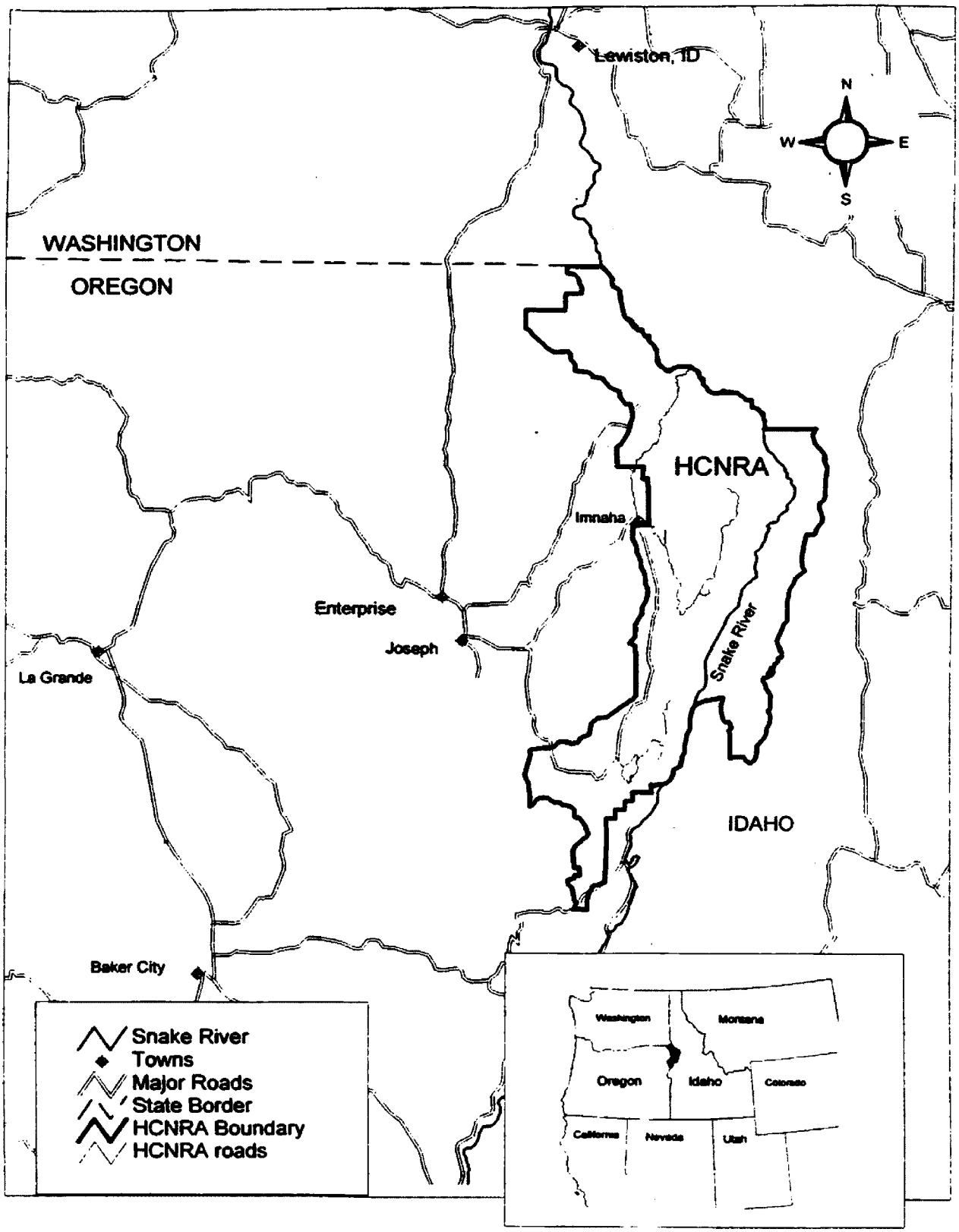
USFS- United States Forest Service

WWNF- Wallowa-Whitman National Forest

Acknowledgements

I would like to thank Mary O'Brien and Ric Bailey for introducing me to the beauty of Hells Canyon; Tom Roy, for giving me the opportunity to come back to graduate school; Bob Dickey, for his continued support over the years; Rick Riggs, my late ecology teacher and friend; Tom Platt, for his belief in my ability to finish this (and for his computer); my friends in Fort Collins who encouraged me to take chances; and most of all, to my family. Wish you were here for this, Dad :)

Map 1 – Hells Canyon National Recreation Area



Chapter I

Introduction

In 1975, Congress directed the United States Forest Service to preserve Hells Canyon's natural and historic values:

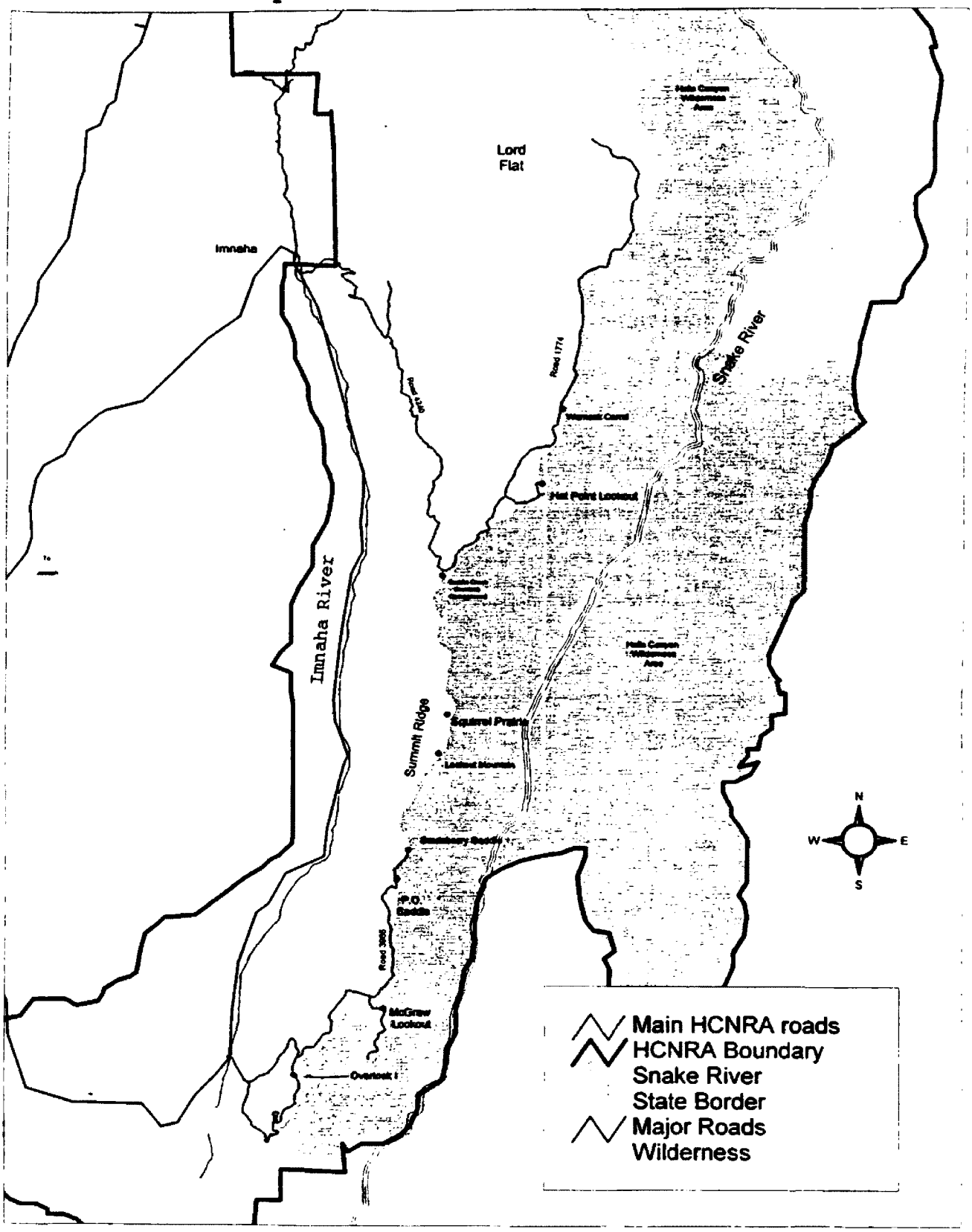
> *Preservation, especially in the area generally known as Hells Canyon, of all features and peculiarities believed to be biologically unique including, but not limited to, rare and endemic plant species, rare combinations of aquatic, terrestrial, and atmospheric habitats, and the rare combinations of outstanding and diverse ecosystems and parts of ecosystems associated therewith; [and] the protection and maintenance of fish and wildlife habitat.* (Hells Canyon National Recreation Area Act; 16 USC 460(gg)(4)).

The western rim of Hells Canyon within the Hells Canyon National Recreation Area (HCNRA) is dominated by roads and motor vehicle based recreation. In addition, there is currently a Bill in Congress that would declassify a portion

currently a Bill in Congress that would declassify a portion of Hells Canyon Wilderness Area to allow the building of a road and permit addititonal motorized access onto the rim (see Appendix A). The purpose of this paper is to establish that roads and motor vehicles negatively impact wildlife, and they reduce the quality of wildlife habitat, non-motorized recreation opportunities, and wilderness values on the western rim of Hells Canyon. The management goals as stated in federal mandates and management plans, do not warrant the proliferation of roads and motor vehicle access that currently exists on the western rim. Furthermore, opinion from a remarkably broad coalition of groups including wildlife managers in the Oregon Department of Fish and Wildlife (ODFW), the Oregon Hunters Association (OHA), the Nez Perce Tribe, many outfitters and local residents, does not support an increase in motorized access on the western rim of Hells Canyon.

Currently, 76 percent of the rim (38 of 50 miles) is accessible to motor vehicles (see Map 2). The remaining twelve miles of rim, from Saulsberry Saddle to the Hat Point road, represents unique wildlife habitat--the only section of rim undisturbed by motor vehicles. The Bill in Congress proposes the wilderness boundary change to permit the construction of a road and allow motor vehicle access onto seven of those twelve miles via an old dirt track (Forest Road 3965). This section of rim is one of two sections of

Map 2 - Western Rim Roads



Hells Canyon's western rim that this paper will focus on, and it will be referred to as the Lookout Mountain Road.

Along the north end of the canyon rim lies the second section of rim this paper will focus on--the Lord Flat Road (Forest Trail 1774). Beginning at Warnock Corral and heading north for sixteen miles to Lord Flat, this braided, dirt two-track and its numerous spurs actually weave into and out of the Hells Canyon Wilderness Area repeatedly. It is apparent that the road crosses into the Wilderness because the Wilderness boundary follows the hydrologic divide between the Snake and the Imnaha Rivers, which in many places is an extremely narrow ridge. The roadway is highly eroded, with foot-deep ruts and unsanctioned detours around large holes occurring all along the road. The legality, condition, and appropriateness of the Lord Flat road have been challenged for twenty years by conservation groups, wildlife biologists, hunting groups, outfitters, Native Americans and ranchers (see Appendix B).

Both the Lookout Mountain and Lord Flat roads bisect a critical migratory corridor for mule deer and elk which move from winter habitat in the depths of Hells Canyon to summer habitat high in the Wallowa Mountains (Coggins 1997). The western rim of Hells Canyon also provides unique and sensitive habitat for grouse, bighorn sheep, black bear, lynx, coyote and wolverine. These species are especially sensitive to human encroachment, as are elk and peregrine

falcon, which are Wallowa-Whitman National Forest (WWNF) Management Indicator Species (USDA 1996).

In addition, the rim has exceptional wilderness, solitude, scenic and primitive recreation values that are negatively affected by motor vehicle traffic and the human activity associated with roads.

Hells Canyon is unique. The biological diversity, regional ecological significance, spectacular scenery, and relatively remote character combine to make this area a truly national treasure. Due to the special legal mandate of the HCNRA Act, there are excellent opportunities for restoring ecosystems and protecting wildlife in the Hells Canyon region. In addition, the shift in current Forest Service management direction to increased emphasis on ecosystem protection can only help efforts to protect Hells Canyon.

This paper will explain the ecological significance and unique environmental qualities of the Hells Canyon area. Then, focusing on the western rim, the impacts that roads and motor vehicles have on wildlife, habitat, non-motorized recreation and wilderness values will be discussed.

This review will demonstrate that in order to follow the ecosystem protection management goals described in the HCNRA Act, the Wallowa-Whitman National Forest Comprehensive Management Plan (CMP), and other Federal mandates, motorized access to the rim of Hells Canyon should be decreased. This

analysis will lead to a proposal for access on the western rim of Hells Canyon based on ecosystem protection that fulfills the Forest Service management goals for access/recreation opportunities, wilderness preservation and wildlife/habitat protection. Specifically, the Lord Flat Road should be closed to motorized vehicles at Warnock Corral, and the Lookout Mountain road should remain a non-motorized, wilderness trail.

Chapter II

Management of Hells Canyon

Chapter two will discuss the history of the Hells Canyon National Recreation Area, the management goals for the area, and the current status of the HCNRA Comprehensive Management Plan.

What Is A National Recreation Area?

Congress never passed a "national" recreation area act. Instead, each recreation area was created individually and is managed under its own mandate. There are thirteen recreation areas managed by the United States Forest Service, seventeen managed by the United States Park Service and one managed by the Bureau of Land Management. According to a policy statement issued from the Bureau of Outdoor Recreation in 1963, recreation areas need only have "natural endowments well above the ordinary" and should be within easy driving distance from an urban area. Hells Canyon undeniably has extraordinary natural features. The closest, large cities to Hells Canyon are Boise, Idaho (population 125,000 and a three and a half hour drive); Spokane, Washington (population

180,000, and four-and-a-half hours away); Lewiston, Idaho (population 28,000, and an hour-and-a-half drive); and Portland, Oregon (population 500,000, and an eight to ten hour drive). In most Forest Service administered recreation areas, multiple use, not necessarily recreation, is the management objective: logging, mining, grazing and hunting are permitted. The managing agency must adhere to the mandate of the individual recreation area act, but the management objectives can be met in any way the agency chooses. For example, logging can be viewed as a use compatible with recreation, since logging roads can provide access to recreation opportunities (Richie 1988).

History of the Hells Canyon National Recreation Area

In 1962, the Hells Canyon-Seven Devils Scenic Area was established by the Secretary of Agriculture "because of the scenic, geologic, and recreation features...and to protect, make accessible, and enhance the public values and appreciation of those features" (USDA 1971).

In the early 1970's, several Congressmen from Idaho and Oregon who opposed additional dam building projects in the canyon, suggested that the area be granted further protection. "National River" and "National Forest Parkland" designations were proposed, and in 1973, Idaho Senator Frank Church recommended the canyon area for "National Recreation Area" status (Richie 1988). The final bill, enacted on

December 31, 1975 as Public Law 94-199, was basically a political compromise between wilderness supporters and developers. Nonetheless, the act protected 652,488 acres as the Hells Canyon National Recreation Area, which included the 194,132 acre Hells Canyon Wilderness Area core (see Appendix C).

Since designation of the Hells Canyon National Recreation Area, uses and user groups have changed considerably. Before designation as a National Recreation Area, the multiple use concept was commodity-production driven, and there were few restrictions on resource extraction. Today, although logging, grazing and mining are still common in the HCNRA, providing recreation opportunities has been the emphasis recently.

The Hells Canyon National Recreation Area straddles two states, three Forest Service regions, and three National Forests. The HCNRA is managed by the United States Forest Service (USFS) through the Wallowa-Whitman National Forest in Oregon, and in Idaho, through the Payette and Nez Perce National Forests. This paper focuses on the western rim, and so only management plans of the Wallowa-Whitman National Forest will be discussed.

HCNRA management goals

Upon creation of the HCNRA, Congress directed that a Comprehensive Management Plan be written. The Wallowa-

Whitman National Forest declared the following as management goals:

Vegetation resource management goals:

(1) Do nothing to jeopardize the continued existence of listed species or modify or destroy their critical habitat (USDA 1990).

(2) Restrict or prohibit other activities (e.g., off-road vehicles) impacting plants or habitats and monitor activities where necessary to protect PETS (Proposed Endangered Threatened Sensitive) species (USDA 1990).

Wildlife/habitat resource management goals:

(1) Provide habitat for viable populations of of all existing native and desired non-native vertebrate wildlife species and to maintain or enhance the overall quality of wildlife habitat across the Forest (USDA 1990).

(2) Discourage visitor use in areas, or during time periods, that would be detrimental to wildlife (USDA 1990).

(3) Recreation and other resource management will, whenever practical, be done in a manner to improve wildlife habitat (USDA 1990).

Transportation management goals:

(1) Provide the minimum system necessary for the specific activities authorized under the management area direction (USDA 1990).

(2) Manage the transportation system to provide a wide range of experiences (USDA 1996).

Recreation management goals:

(1) Manage outdoor recreation to ensure that recreation and ecological values and public enjoyment of the area are enhanced and compatible with objectives of the HCNRA Act (USDA 1996).

(2) Provide a wide variety of recreational opportunities in an attractive setting and provide some new rustic camping opportunities (USDA 1990).

Wilderness resource goals:

(1) Preserve the wilderness character of the area while permitting acceptable human use including recreation (USDA 1990).

(2) Limit the transportation system within Wilderness to trails intended for non-motorized use (USDA 1990).

(3) To preserve the natural conditions and outstanding opportunities for solitude (USDA 1990).

Section seven of the HCNRA Act directs that recreation opportunites be administered in a manner compatible with the following objectives:

(2) Conservation of scenic, wilderness, cultural, scientific, and other values contributing to the public benefit.

(3) Preservation, especially in the area generally known as Hells Canyon, of all features and peculiarities believed to be biologically unique including, but not limited to, rare and endemic plant species, rare combinations of aquatic, terrestrial, and atmospheric habitats, and the rare combinations of outstanding and diverse ecosystems and parts of ecosystems associated therewith.

(4) Protection and maintenance of fish and wildlife habitat.

Section eight of the HCNRA Act states:

(c) Consider the alternative for upgrading existing roads and...in particular, study the need for and alternate routes of roads or other means of transit providing access to scenic views of and from the Western rim of Hells Canyon (See Appendix C for entire HCNRA Act).

Current status of the CMP

The original Comprehensive Management Plan was developed in 1981, and following a series of appeals, implemented in

1984. The Wallowa-Whitman National Forest has periodically adjusted parts of that plan, and then in 1994, as directed in the original CMP, began the 10 year evaluation of the plan. The 1996 HCNRA Draft Environmental Impact Statement for the new CMP states that current management focus is on "providing quality recreation experience opportunities and meeting the objectives of the HCNRA Act" (USDA 1996).

According to Kurt Weideman, planning team leader for the new CMP, "As a result of changing public values and new information, the protection, preservation and development of opportunities for wildlife, recreation and historical interpretation will have priority. Extractive activities...will be allowed, but only in a manner consistent with the management and restoration of sensitive and rare ecosystems... We want to look at adjusting the CMP to be more in tune with the philosophy of where the agency is today with ecosystem management... We are putting more emphasis on ecosystem protection" (USDA 1995).

In December 1996, the Draft Environmental Impact Statement (DEIS) for the new CMP was released. It has been appealed by a policy and science based group, the CMP Tracking Group, which proposed that a Native Ecosystems Alternative (NEA) be considered by the Wallowa-Whitman National Forest as a management direction. The CMP Tracking Group began working on an ecosystem-priority alternative in 1994, and submitted the NEA for inclusion in the Draft EIS,

only to be ignored by both former WWNF Supervisor Bob Richmond and current WWNF Supervisor Karyn Wood.

The National Environmental Policy Act (NEPA) requires the United States Forest Service to consider all reasonable alternatives for any Management Plan. In February 1998, Mary O'Brien from the CMP Tracking Group met with Bob Joslyn (Deputy Chief, USFS), Christopher Risbrudt (NEPA Coordinator), Dinah Bear (Council for Environmental Quality), and others to discuss the omission of the Native Ecosystem Alternative in the Draft Environmental Impact Statement. The Washington, DC, office of the USFS directed the Wallowa-Whitman National Forest to refrain from sending the final EIS for the HCNRA Comprehensive Management Plan to print until they include the Native Ecosystem Alternative as one of the management alternatives. Currently, the CMP Tracking Group is revising the NEA, and their management directions will be considered in the new CMP.

The goals, objectives, standards and guidelines in the Native Ecosystem Alternative are based on ecosystem protection and "maximum feasible recovery and health rather than on risk-based management for minimal wildlife and ecosystem values." Human activities that have a potential for negative impact on HCNRA native ecosystems would be discontinued unless they are publicly monitored for compatibility with Section 7(1-6) of the HCNRA Act (see Appendix C) (Hells Canyon CMP Tracking Group 1995).

Summary

After reviewing Forest Service management goals for the HCNRA, from Congressional designation as a National Recreation Area in 1975, to the current CMP revision plans, it appears that the agency is assuring the public that human uses in the HCNRA (i.e., logging, mining, grazing and recreation) are to be allowed only when compatible with ecosystem protection. The recent decision by the Washington, DC, USFS office may assist in that direction.

The following chapters will describe the unique features of the Hells Canyon area, and reinforce the assertion that the HCNRA merits increased protection.

Chapter III

Unique Ecological Features of Hells Canyon

In order to determine the appropriate role of motorized recreation in the HCNRA, the ecological significance of the area must be considered. Chapter three will present the ecologically significant and biologically unique components of the Hells Canyon National Recreation Area region.

Geographic setting

The 652,000 acre Hells Canyon National Recreation Area lies in the heart of the Greater Hells Canyon Ecosystem which is surrounded by, and part of, four physiographic regions: the Blue Mountain Region of Eastern Oregon, the Columbia Plateau region of southern Washington, the northern Rocky Mountain region of Idaho and Montana, and the Great Basin region of southern Oregon and northern Nevada (Marshall 1986). This intersection of geographic provinces is also referred to as the Snake River Plateau (Ashworth 1977).

The centerpiece of the Recreation Area is Hells Canyon- the deepest river carved canyon in North America (USDA 1991). The Hells Canyon gorge is incised by the Snake River,

defining the border between northeastern Oregon and west central Idaho. Surprising to many, this spectacular gorge is 2000 feet deeper than the Grand Canyon, carrying a river with twice the volume of the Colorado (Ashworth 1977).

Located within the HCNRA, and divided into two distinct units by the Wild and Scenic Snake River corridor, is the 212,000 acre Hells Canyon Wilderness Area (see Map 2). Within the wilderness, canyon slopes rise up from the Snake river to the Seven Devils peaks on the Idaho side, and in Oregon, the river rim-rock gives way to grassy benches and timbered ridges. The western boundary of the Wilderness Area generally follows Summit Ridge: the hydrologic divide between the Snake River to the east and the Imnaha River to the west. This Wilderness is unique in that it is a low elevation Wilderness Area. Many Wilderness Areas in the west are high elevation, "rock and ice" areas, and biodiversity is much lower than in Hells Canyon

Hells Canyon is unique for several reasons. First, due to the area's pivotal location in the region, it serves as an ecological corridor between the Rocky Mountains to the east and the Blue Mountains to the west (USDA 1996). Second, an extraordinary diversity of wildlife and vegetation is created by the variety of terrain within the HCNRA. Hells Canyon National Recreation Area contains some of the most varied wildlife habitat in the United States (USDA 1996). The Interior Columbia Basin Ecosystem Management Project (ICBEMP)

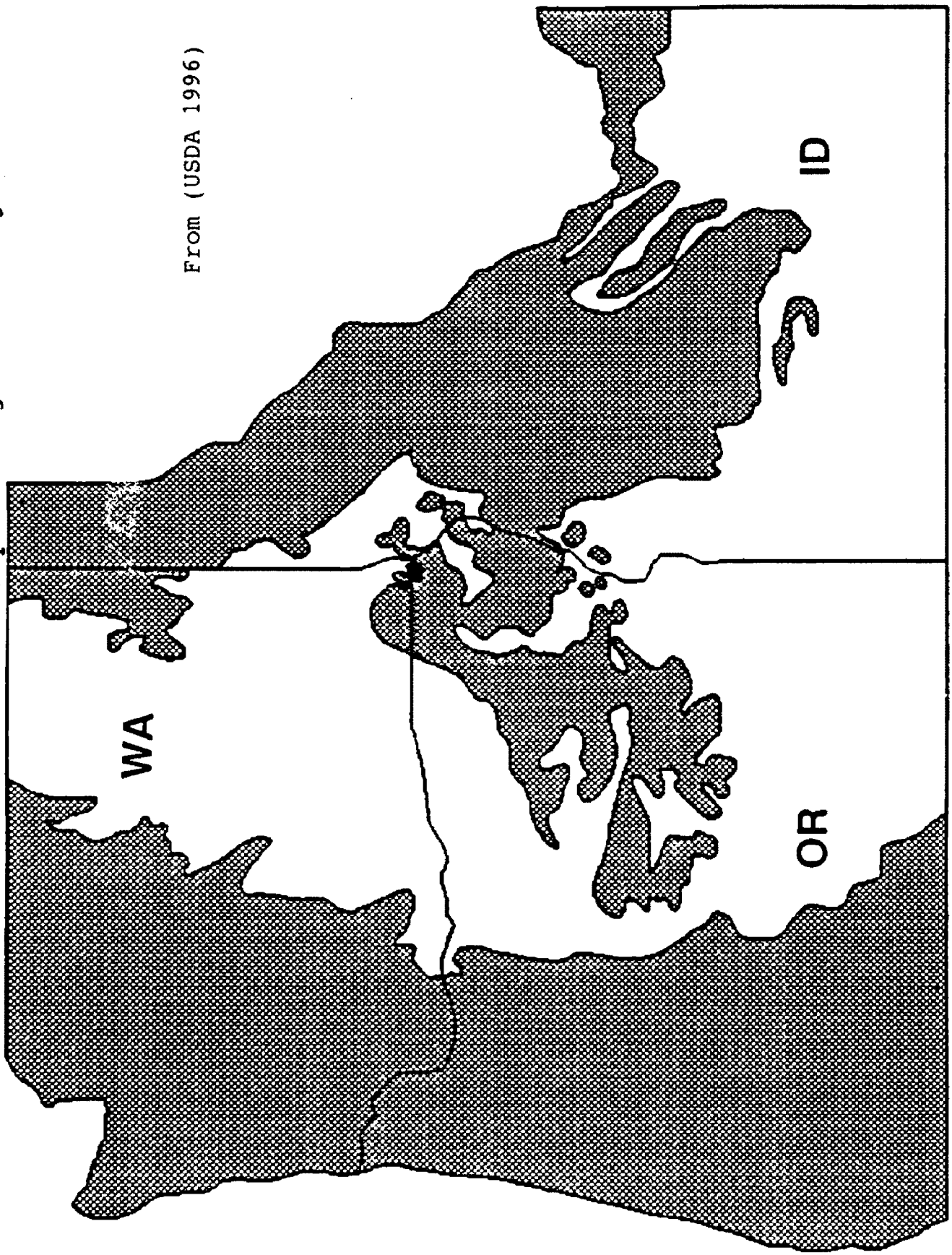
has recently identified the HCNRA as an area of high biodiversity (the only such area in all of eastern Oregon) as well as a center of endemism (USDA 1996).

The HCNRA as an ecological corridor

The southern end of the HCNRA ties forested habitat of the Rocky Mountains to the east with forested habitat of the Wallowa and Blue Mountains to the west (see Map 3). Geologically and botanically the Wallowa Mountains are very similar to the Rocky Mountains (Marshall 1986). This forested corridor between the two ranges is unique, and similar forested corridors do not exist in the region (USDA 1996). This corridor provides important wildlife habitat, and is also necessary for genetic exchange for forest dwelling species, as well as for recolonization of species closely tied to forested habitat (USDA 1996). Genetic exchange is important for biotic diversity and population viability (Harris 1984). The more linkages between ecosystems, the higher the prospects for frequent colonization and genetic exchange to keep wildlife sub-populations viable (Harris 1984). Isolating and restricting wildlife populations by decreasing movement between the populations through habitat fragmentation may cause drastic consequences for preservation of biological diversity (Harris 1984).

Map 3 - Regional Ecological Corridor

From (USDA 1996)



It has been recognized that the effectiveness of an ecological corridor is related to the amount of human disturbance, including recreation use (USDA 1996). The level of recreation use is influenced by the level of road, trail and campground amenities available to the public. An increase in motor vehicles and human activity leads to an increase in disturbances to wildlife and habitat, which could lower the effectiveness of the corridor (USDA 1996).

Biological diversity within the HCNRA

Hells Canyon topography ranges from 7,000 feet at Hat Point in Oregon, down to 1,300 feet on the Snake River, and back up to 9,393 feet at He Devil Peak in the Seven Devils Mountains in Idaho, all within a ten mile horizontal distance. Because of this extreme terrain, an immense variety of plant communities exist close together (USDA 1991). Species composition continually changes as elevation increases: sagebrush and bunchgrass steppes give way to rim-top juniper, ponderosa pine and mixed conifer forests with grand fir, Douglas fir, western larch and lodgepole pine, then higher into the subalpine and alpine ecosystems of the Seven Devils and Wallowa Mountains (Marshall 1986). The varied plant communities in the HCNRA in turn provide habitat for about 350 species of wildlife (Marshall 1986).

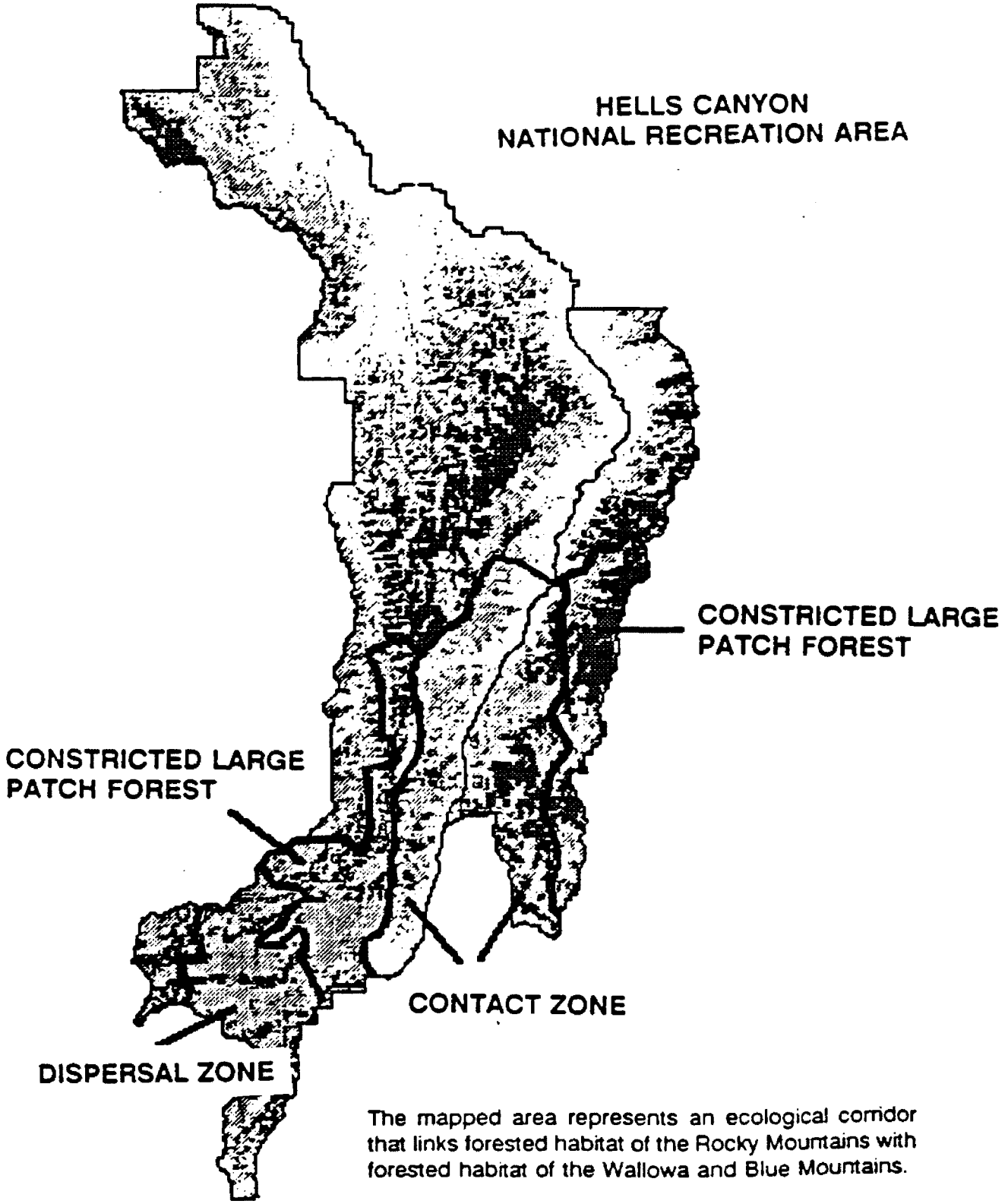
The western rim of Hells Canyon is a mosaic of forested and non-forested vegetative communties which have been influenced by many wildfires. Where fires have burned, lodgepole pine communities dominate and where fires have not burned, the forested communities are dominated by vegetation of the sub-alpine fir and grand fir series (UDSA 1993). Along the rim, slopes vary, gentle to steep, and vegetation types of the non-forested commmunities are generally dominated by several bunchgrass associations, and wet meadows with natural springs.

"The overall rugged nature of the Hells Canyon National Recreation Area and the juxtaposition of steep and flat topography result in fairly limited and defined travelways for many wildlife species" (USDA 1996). Two key components of these corridor travelways that are most relevant to this western rim study are the constricted large patch forest habitat and the plateau habitat.

Constricted large patch forest

In the HCNRA, the ecological corridor has three forested components: the "contact zone," which includes the narrow forested stringers that follow the canyon drainages up from the Snake River canyon to the "constricted large patch forest", which is the forested zone along the ridge at the top of the contact zone; and the "dispersal zone," which provides access to the habitat beyond (see Map 4). The

Map 4 - Ecological Corridor Within the HCNRA Constricted Large Patch Forest Habitat



From (USDA 1996)

constricted large patch forest is the first area outside of the canyon that provides habitat for species requiring interior forest habitat, and since it is at the rim-top, it is the zone most relevant to this paper. In the HCNRA, quality forested habitat is at a premium for species requiring a closed forest canopy because approximately 70% of the recreation area is non-forested (USDA 1996).

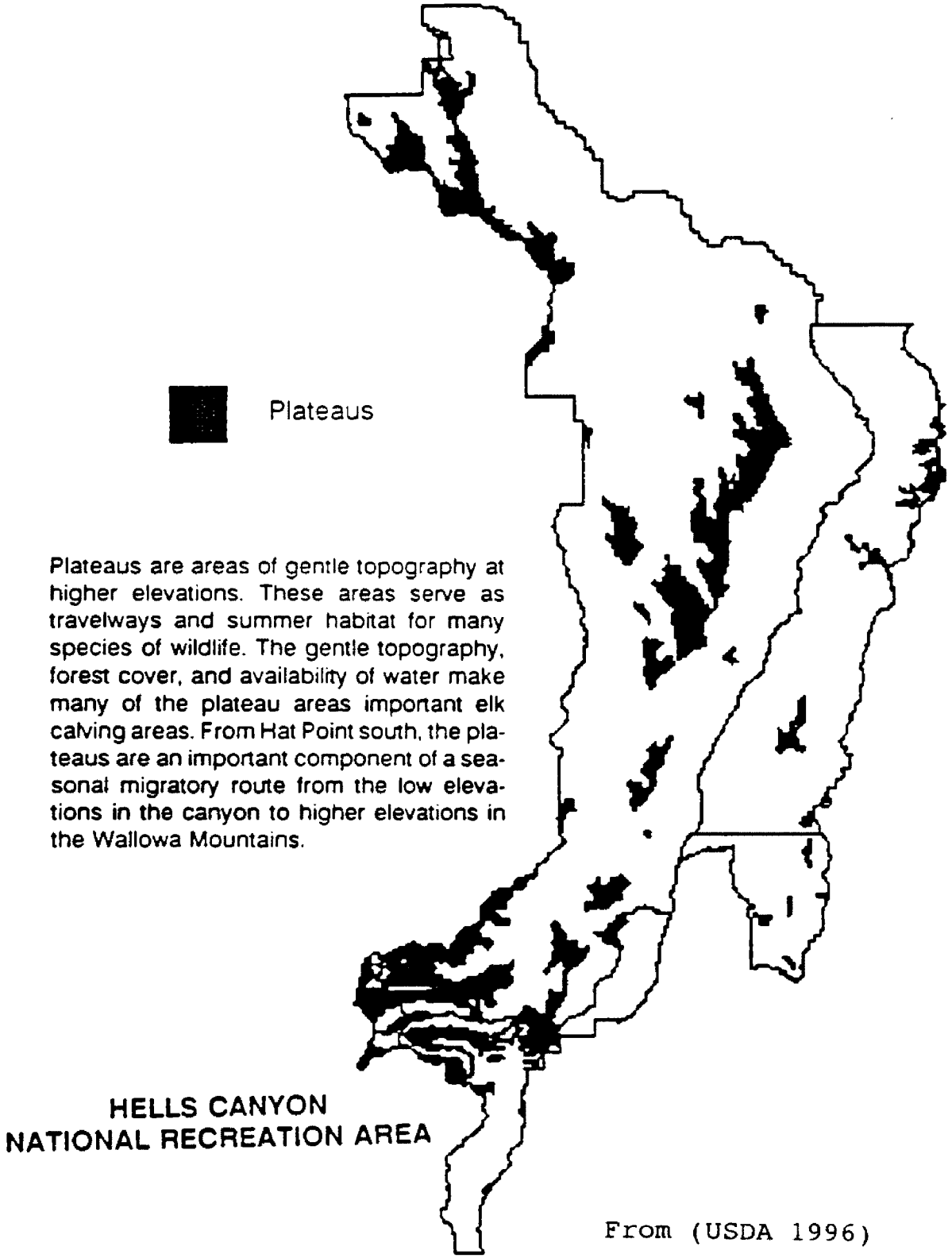
Plateau habitat

Another important component of the wildlife travelways are the ridge top plateaus (see Map 5). The plateaus, or gently rolling uplands, are relatively scarce, comprising only 12.5% of the HCNRA (USDA 1996). These plateaus are not only important as travel corridors, but serve as primary elk calving grounds and summer ungulate habitat. Specifically, from Hat Point south, the plateaus are part of the seasonal migration route that elk travel to move from the Snake River canyon in the winter to the high elevation Wallowa Mountains in the summer (USDA 1996).

Protected plants

The HCNRA is home to several endemic or endangered plant and animal species. Three unique plant associations are found along the rim and four plant species occur in the area that are listed or proposed for listing as Threatened, Endangered or Sensitive (USDA 1993).

Map 5 - Plateau Habitat



From (USDA 1996)

All 15 populations of Bank monkeyflower known in Oregon, occur within a narrow twenty-mile band along the Snake River canyon rim. Wallowa primrose, a regional endemic, occurs only in southern Wallowa and northern Baker counties. However, road construction and reconstruction, disturbance associated with recreation activities, grazing, and loss of habitat due to invasion of non-native plants have threatened these two species (USDA 1993).

A single male fern population--a species which occurs only occasionally in Oregon--and several discreet populations of Brandege's onion have been located on the Oregon side of Hells Canyon (USDA 1993). Brandege's onion is a Rocky Mountain species which extends into eastern Oregon, and this particular population is the only one known in the HCNRA (USDA 1993).

Protected wildlife

National Forest Management Act regulations require "fish and wildlife habitat to be managed to maintain viable populations of existing...species in the planning area." To assure that viable populations of particular species are maintained, the Pacific Northwest Region of the U.S. Forest Service identified several wildlife species because their populations can be used as an "indicator" of the health of a specific type of habitat (USDA 1990).

In the HCNRA, sightings have been noted, or habitat is present for special status species and indicator species including peregrine falcon, ferruginous hawk, black rosy finch, spotted bat, Pacific Western big-eared bat, wolverine, lynx, Blue Mountain cryptochian caddisfly, northern goshawk, spruce grouse, pileated woodpecker, Lewis woodpecker, Williamson's woodpecker, white-headed woodpecker, black-backed woodpecker, three-toed woodpecker, Rocky Mountain elk, marten and fisher (USDA 1993). In addition, cougar and bighorn sheep travel the ridge systems, and black bear density is high near the ridge north of McGraw and south of Saulsberry saddle (USDA 1993).

The following is a discussion of four wildlife species present in the HCNRA, and important to wildlife and habitat management goals. To ensure continued or future presence of these species, habitat protection is required. Many wildlife species in the HCNRA have similar protected status, and the management goals of the Wallowa-Whitman National Forest and the Endangered Species Act require protection of these species.

Rocky Mountain elk

In the Wallowa-Whitman National Forest, the native Rocky Mountain Elk is a management indicator species, and is highly valued as a hunted species. If adequate habitat is provided for elk, and their population is maintained at the

desired level, it is assumed that adequate habitat is also being provided for other similar-habitat dependent species (i.e., mule deer).

Summit Ridge is a major migration corridor for Rocky Mountain elk: approximately 4570 bulls, cows, and calves move through the area each season (USDA 1993). Elk leave their winter ranges in the Snake River canyon in late spring when the temperatures begin to rise, and they cross Summit Ridge. Migrating subgroups of elk with pregnant cows will linger along the ridges, calve in the grassy meadows, and remain to rear the calves here until the snows melt and they can move to the high Wallowa Mountain meadows for the summer. Herds migrate back through the area in late October and early November (USDA 1996).

Bighorn sheep

Bighorn sheep roamed the canyon country around Hells Canyon for thousands of years. Historical reports indicate that bighorns also migrated out of the Snake-Imnaha Divide and up to the Wallowa Mountains for the summer (O'Brien 1995). When domestic sheep were introduced to the area about 100 years ago, the native bighorn sheep came in contact with a bacterial pneumonia which reduced their numbers drastically. There are currently four herds of reintroduced Rocky Mountain bighorn sheep in the HCNRA, consisting of a combined total of about 220 animals (USDA 1996). Today,

bighorn sheep can be found along McGraw ridge, and the ridges west of McGraw and Lookout Mountain are along a potential migration route for two additional populations of bighorn sheep that would seasonally move from the Wallowa Mountains into Hells Canyon (USDA 1993). Nationwide there is strong public support for increased numbers of bighorn in the HCNRA and the west (Coggins 1992).

Wolverine

The Oregon Department of Fish and Wildlife has documented the presence of wolverine in the Squirrel Prairie area of the Hells Canyon rim (Coggins 1997). The wolverine is one of North America's rarest mammals, and is currently listed as a threatened species in Oregon, and so has protected status. Wolverines are solitary animals and are generally restricted to the more remote and inaccessible parts of the country. The actual status of wolverines in Oregon is unknown--there were only twenty-three sightings in the state between 1981 and 1992 (Banci 1994). However, because they are so secretive and difficult to observe, a lack of sightings does not necessarily mean a lack of presence (Banci 1994). The sighting of wolverine tracks on the western rim of the canyon is an encouraging sign of their presence. Although there are no known dens in the HCNRA, the HCNRA has been identified as having potential denning habitat (USDA 1996). The Forest Service has speculated that the

HCNRA could potentially serve as a dispersal corridor for central Idaho wolverines moving into the Blue Mountains of Oregon (USDA 1996).

Grouse

Grouse, popular game birds in the HCNRA, are native to the area. The blue grouse is commonly distributed through ponderosa pine and mixed conifer forest (USDA 1996), but its numbers are decreasing in the HCNRA (Coggins 1997). They are ground nesters, and quite sensitive to human disturbance. The spruce grouse is protected in Oregon, and its only known breeding range is the Hells Canyon/Blue Mountain region of eastern Oregon (Marshall 1986).

The Endangered Species Act, National Forest Management Act, HCNRA Act and stated management goals of the Wallowa-Whitman National Forest, require the protection of these and other plant and wildlife species and wildlife habitats. Protection of large-scale habitat, as well as individual species, is of tremendous importance if ecosystem health is the desired goal.

The next chapter will describe the current status of habitat and wildlife on the western rim, including road densities, and the effects that roads and related human acivity have on habitat quality and wildlife viability.

Chapter IV

Roads, Humans, Habitat and Wildlife

Chapter four will explain the effects of roads and recreational activity on habitat and wildlife, focusing on conditions present on the western rim of Hells Canyon.

Effects of human activity on habitat

Roads are considered necessary by the United States Forest Service for the protection, administration and utilization of forest resources. However, roads and the human activity associated with roads, have become an increasing source of concern for wildlife managers, due to harm to critical habitat and the direct negative effects on wildlife (Witmer 1985).

First, the physical presence of roads affects wildlife habitat: more than 640 acres of habitat (one square mile) can be disrupted by each mile of road (Perry 1976). Travelled roads can act as barriers for species with small home ranges and limited dispersal ability (USDA 1993). In addition, whether travelled or not, roads create permanent breaks in biotic and hydrologic flow. Roads can also provide avenues

for the introduction of noxious weeds, non-native plants and generalist species into native ecosystems, and are of increasing concern to land managers. Initially, non-native plants can be introduced during road construction and can continually be brought in on recreation vehicles. Noxious weeds compete with PETS plant species, decrease the quality of habitat for many animal species, and can even make habitat unusable (USDA 1993).

General truck, auto and recreation-related motor vehicle use (ATV, motorcycle, snowmobile) brings with it related human activity that can further decrease habitat value adjacent to roadways, and can result in wildlife species being displaced from an area (USDA 1996). The extent of disturbance is dependent upon the type of recreation activity, the recreationist behavior, and the frequency, timing and magnitude of noise created. An increase in noise and activity increases the amount of area disturbed and produces a more acute avoidance response from wildlife (Knight & Gutzwiller 1995).

The most obvious consequence of excessive human use in an area is the physical alteration of habitat (i.e.,the actual destruction or removal of vegetation). Human activity concentrated in and around campgrounds and campsites can increase soil compaction and erosion. If sensitive areas are not blocked off, recreationists can, and do, drive vehicles off-road, increasing degradation of the area. Removal of

snags in popular recreation areas to provide for human safety decreases breeding, rearing and den sites for animals and cavity nesting bird species. Removal of dead wood for camp fires results in decreased hiding and nesting cover and reduces availability of soil building nutrients. Also, with an increase in visitor use, litter, vandalism, and sanitation problems increase (USDA 1993).

Effects of human activity on wildlife

With an increase in human presence, there is increased potential for disturbance of wildlife by humans who use roads, from simply the sight and smell of humans frightening animals, to harrassment of wildlife (chasing, spotting) to direct mortality (collision with vehicles and even poaching). Harassment to wildlife can cause increased metabolism in the animal which can deplete energy reserves, can provoke a flight response causing the interruption of feeding, and can displace animals to less suitable or already occupied habitat resulting in increased competition for food, reduced vigor and even death (USDA 1996).

The most vulnerable periods for animals are during the breeding and post natal periods (spring and summer on the western rim), during the nesting, breeding and rearing periods for birds (spring on the western rim), in periods of migration along constricted travelways (spring, summer and fall on the western rim), and during the winter months when

energy expenditure is critical (Knight & Gutzwiler 1995). Constant disturbance during breeding season can result in abandonment of young, increased vulnerability to predation possibly leading to death, and eventually, to a decrease in species viability (Knight & Gutzwiler 1995). Animals may avoid or abandon harassment-prone areas altogether, resulting in reduced range of the population (Witmer 1985).

Areas permitting motorized access are susceptible to more continuous use by greater numbers of people, and have the potential to reach irreversibly degraded conditions sooner than areas without motorized access.

Habitat effectiveness

A Habitat Effectiveness Index (HEI) is often used by wildlife managers to evaluate elk habitat. The three factors contributing to the index are forage value, cover, and road density. As described by Tim Schommer of the Wallowa-Whitman National Forest, "When considering the road density factor...no roads would result in 100% habitat effectiveness. One mile of road per square mile of forest equals 70% effectiveness. Four to five miles of road per square mile results in a 22% HEI" (Wray 1990). Consequently, the more roads, the less effective the habitat.

On the western rim, there are no management restrictions on driving off-road, and vehicles can drive cross-country on much of the flat land, so elk habitat effectiveness may be

even lower than the open road densities indicate (USDA 1993). Furthermore, this habitat effectiveness rating considers only the road density factor. Additional habitat conditions must be evaluated along with the habitat effectiveness index in order to determine the actual quality of habitat.

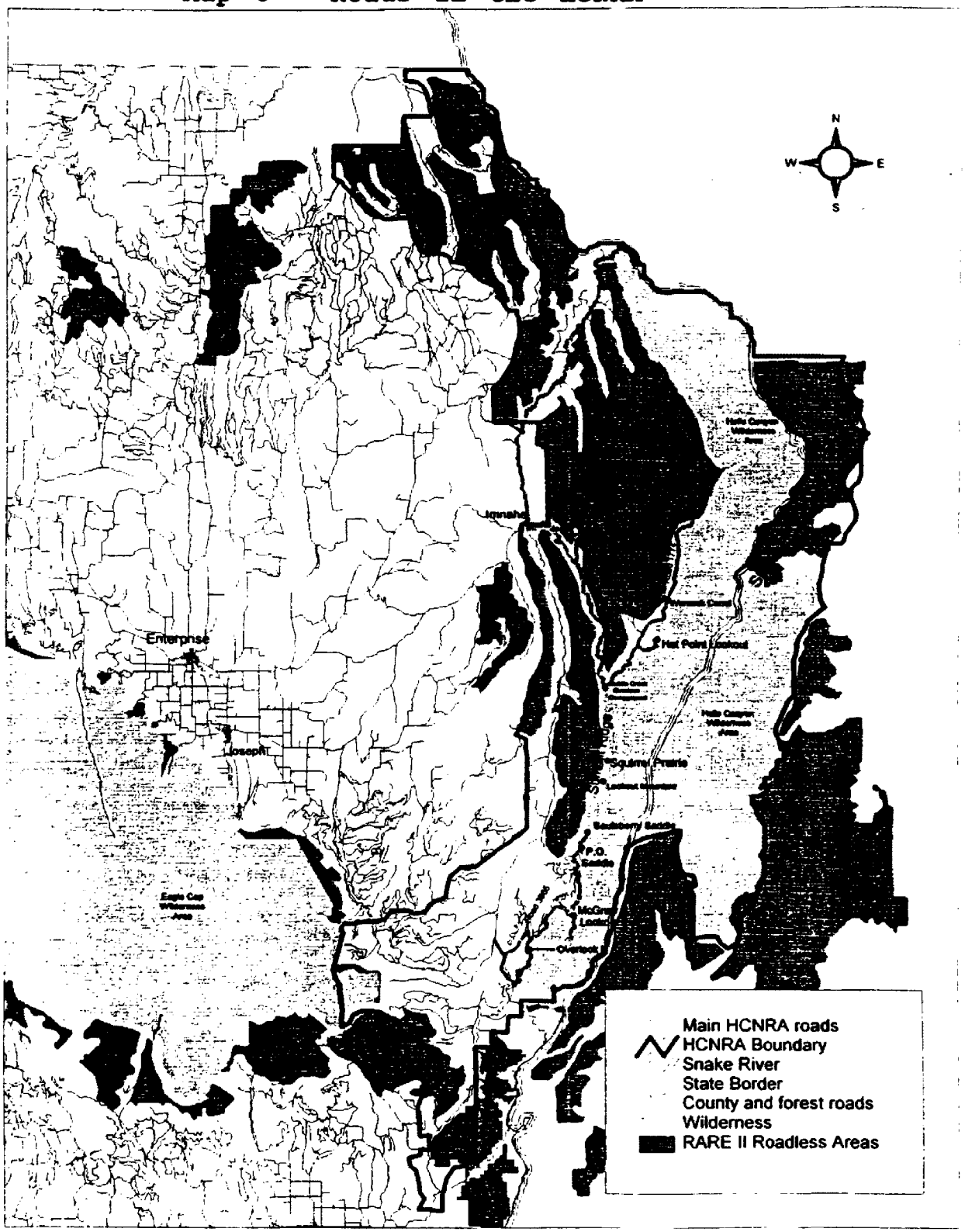
One mile of road per square mile is considered a threshold above which many species would displace to avoid human activity (Wray 1990). When the amount of nearby usable habitat is limited, displacement of animals becomes a critical issue. This concept is important to remember when evaluating the habitat and road density conditions on the western rim of Hells Canyon.

Roads, roads, roads

In the HCNRA, constructed roads total 964 miles (USDA 1996) (see Map 6). The WWNF lists 725 miles of "maintained" roads in the HCNRA, which translates into an average of three miles of road per square mile over the HCNRA, excluding wilderness and roadless areas (Richie 1988). This level of access in the Recreation Area represents a 58% increase in the total miles of roads since 1982 (USDA 1996).

The transportation system in the HCNRA includes a profusion of "finger" roads that bisect large undisturbed areas, intrude along ridgetops and creek bottoms, and traverse most flat (plateau) areas. The road system on the western rim was originally developed to accomodate timber

Map 6 - Roads in the HCNRA



harvest activities, and primary access is along the ridge-top, with secondary roads radiating off into forested lands to the west (USFS 1993).

The primary disturbance in the constricted large patch forest zone in the HCNRA is due to road construction for timber harvest and recreation access. In these areas, human disturbance and habitat modification pose the highest risk to species closely tied to interior forest habitat or those sensitive to human disturbance (such as elk and mule deer). In the constricted large patch forests on the Oregon side of the recreation area, road density is 2.6 miles per square mile of habitat (USDA 1996).

The relatively flat plateau areas are also where disturbance associated with roads and past timber harvest activity has been concentrated. Total road density in the plateau habitat type is 6.24 miles per square mile (USDA 1996).

There are approximately seventy-four miles of open road in the management area wher Squirrel Prairie lies. Open road densities in plateaus within this management unit are 2.43 to 2.72 miles per square mile (USDA 1996). In the north part of this unit where plateau habitat is constricted and more susceptible to disturbance, road densities occasionally exceed three miles per square mile (USDA 1996).

The HCNRA Comprehensive Management Plan specifically states that the area where the greatest disturbance potential

and the most constricted forest habitat corridors coincide is from McGraw Saddle to P.O. Saddle. The rim region north of P.O. Saddle currently serves to alleviate disturbance in the McGraw Saddle to P.O. Saddle area (USDA 1996). If the Lookout Mountain road were to be opened, it would result in increased disturbance to this northern portion of constricted large patch forest, which is now providing critcal wildlife habitat for species of concern (i.e., wolverine, lynx, pine marten, grouse) whose numbers have been greatly reduced (USDA 1995).

The improved level of access and the availablity of additional amenities on the western rim due to recent developments (i.e., McGraw Lookout, Overlook I) has drawn more recreation use to the area (see Chapter VI). There are currently developed sites at many points within the ecological corridor, and habitat fragmentation and increased human presence could reduce the overall effectiveness of this corridor (USDA 1996).

The 1996 Draft EIS suggests, "Until a full conservation assessment is completed that describes in more detail the movement patterns and needs of various species and communities of species in eastside ecosystems, it is important to insure that blocks of habitat maintain a high degree of connectivity between them, and that blocks of habitat do not become fragmented in the short term" (USDA

1996). By keeping road density low across large landscapes, we contribute to the conservation of species (Noss 1996).

Rocky Mountain elk

Don Wilt, biologist with the Oregon Department of Fish and Wildlife, is concerned that elk habitat in northeast Oregon is decreasing in quantity and quality (Wray 1990). "Elk face three problems in northeast Oregon. They are habitat, habitat and habitat," he says. Habitat fragmentation due to roads has decreased habitat effectiveness. Roads appear to be the single most important variable that the Forest Service manages in regards to elk and deer vulnerability (Christensen 1993).

Timber harvest and the associated road building and maintenance has increased elk vulnerability by improving vehicle access along Summit Ridge (USDA 1993). Elk habitat on the ridge is diminished by motor vehicle traffic moving along open roads and cross-country. Furthermore, while Summit Ridge is an important elk migration corridor, the majority of motorized traffic occurs during the migration and calving periods. "Herds of cows and calves frequent the meadows surrounding McGraw Lookout and are easily displaced by vehicles that stop or people that walk by" (USDA 1993). Additionally, the fall migration period typically coincides with hunting season. At this time, elk escapement from hunters is low because hunters can drive to most areas on the

ridge (USDA 1993). In the Hells Canyon Overlook II Environmental Assessment prepared in 1993, it was stated that "the area through which motor vehicles are allowed to travel must be reduced so as to improve elk security" (USDA 1993).

Tim Schommer, wildlife biologist for the Wallowa-Whitman National Forest, stated, "If the [Lookout Mountain] road is open during the summer months I would anticipate elk would be displaced up to one-half mile from each side of the road, and deer up to one-fourth mile from the road" (Schommer 1996). One-half and one-fourth mile displacements from either side of the road "effectively excludes elk and deer from almost all level ground available in the rim area" (O'Brien 1996).

It is important to keep in mind the cumulative impacts that development can have on habitat and wildlife. Tim Schommer, WWNF wildlife biologist stated, "Older, three and a half year old bulls [elk] have been rare. This is due to a combination of high hunter densities, open road access on the rim and along the Imnaha River, the bench trail, a low percentage of hiding cover, and raft and jet boat access along the Snake River" (Schommer 1996).

This is a bold statement of cumulative impacts. "As most wildlife biologists recognize, it is the gradual, subtle degradation of habitat and reproductive capability of wildlife by a combination of impacts that results in such phenomena as extirpated lynx and spruce grouse and small

populations of mule deer, wolverine, and bighorn sheep along the HCNRA western rim" (O'Brien 1996).

The habitat loss problem facing elk is shared by many species of wildlife in Hells Canyon.

Bighorn sheep

Historically, bighorn sheep were widely distributed in most mountain ranges, canyons and badlands of the western United States (USDI 1995). Between 1850 and 1900, their numbers dropped due to unregulated hunting, disease, competition from livestock, and human encroachment (USDI 1995). Since 1900, habitat fragmentation has been the main limiting factor to population recovery (USDI 1995). Fragmentation from livestock grazing, urbanization, recreation, and roads has forced sheep to remain in small, isolated ranges. Opportunities for seasonal migration have decreased, which has led to a decrease in genetic diversity (USDI 1995). When bighorns are pushed from prime to marginal habitat, mortality increases and productivity decreases (Van Dyke 1983).

While habitat fragmentation due to roads is harmful, in many cases it is not necessarily the roads but the associated human activity that can be of greatest harm to the bighorn sheep (Van Dyke 1983). Even if all the individual components of bighorn habitat are satisfied (i.e., forage, water, cover), the habitat as a whole will be unsuitable if human

use is excessive (Van Dyke 1983). Human disturbance of bighorn sheep during breeding season is detrimental to breeding success, and excessive disturbance in any form may cause a decline in productivity (Van Dyke 1983).

Oregon Department of Fish and Wildlife biologists note that while bighorn may tolerate more vehicle disturbance than elk, they believe that excessive human activity could displace sheep or reduce their utilization of preferred habitat (Coggins 1997).

There is strong public support for increased numbers of bighorn in the HCNRA (Coggins 1992). If the "management objective is to maintain bighorn sheep, a careful evaluation of potential habitat alteration and human activity is critical to the planning process" (Van Dyke 1983). "For the most part, bighorn sheep now exist because of human decisions and the fate of the species will be determined by future management of public lands" (Van Dyke 1983). Specifically, Vic Coggins has stated that restoration of a migratory herd of bighorns would be jeopardized by heavy human use along the access (Lookout) road (O'Brien 1995).

Spruce grouse

Spruce grouse were once abundant in the high forested ground along the rim but timber harvest, road construction, and human presence have reduced populations and habitat of the grouse. Vic Coggins of ODFW has correlated the local

scarcity of spruce grouse with disturbance by children and dogs in campgrounds located in spruce grouse habitat (USDA 1996). Grouse will flush off nests when disturbed by vehicles, which can cause direct mortality or abandonment of young as documented by Robinson (USDA 1996). Restoration of this species is dependant upon availability of quality habitat.

Road closures

Road closures can be a fairly effective method of protecting elk in areas where human intrusion is a problem (Wray 1990). Closing roads can mitigate impacts to wildlife; however, the closed road will still have effects. An open travel corridor has been created, causing an unnatural break in habitat through which humans will continue to have access. On the western rim, several roads have been closed for resource or wildlife protection; however, because topography is gentle and vegetation is sparse, many of these closures are made ineffective by people simply driving around the barriers (USFS 1993). Closing and obliterating unnecessary roads is becoming more common in the National Forests, and can help restore fragmented habitat, but it can be a difficult and expensive process (Weaver). Now, more than ever, with increasing development on the western landscape, it is imperative that public land managers consider all effects of proposed roads on wildlife and habitat before

allowing the construction of additional roads. "If we closed half the roads in eastern Oregon, we would still have two miles of open road per square mile" (Bugle 1994)

Another facet of the roads and motorized access discussion that must be addressed is the human aspect. People come to the HCNRA to recreate. After all, providing recreation opportunities is a principle mission of a Recreation Area. The following section will review the recreation opportunities along the western rim of the canyon, and also present public sentiment.

Chapter V

Wildland Recreation and Human Values

This chapter will address the recreation and recreationist aspect of the motor vehicle access issue. Since the western rim of Hells Canyon is also the edge of a wilderness area, it is necessary to consider the impact that roads and motorized recreation have on the Hells Canyon Wilderness. Motorized and primitive recreation opportunities on the western rim will be discussed, and results of public opinion surveys will be presented.

Additional unique qualities of the western rim

In addition to providing excellent wildlife habitat, the western rim of Hells Canyon also has incredible scenic and wilderness qualities, as well as superb opportunities for primitive recreation. Hells Canyon's unmatched scenic qualities result from its location in the highly dissected basalt plateaus of the Blue Mountain physiographic province (USDA 1993). Deep river canyons carve through forests and meadows. From the ridge-top, the viewer is in a superior position, looking into and down on steep, grassy canyon

slopes with horizontal bands of basalt creating a series of benches, and the Snake River--a tiny ribbon of green. Up here, views of the craggy Seven Devils Mountains to the east across the canyon in Idaho, and of the high snow-capped Wallowa Mountains to the southwest are spectacular.

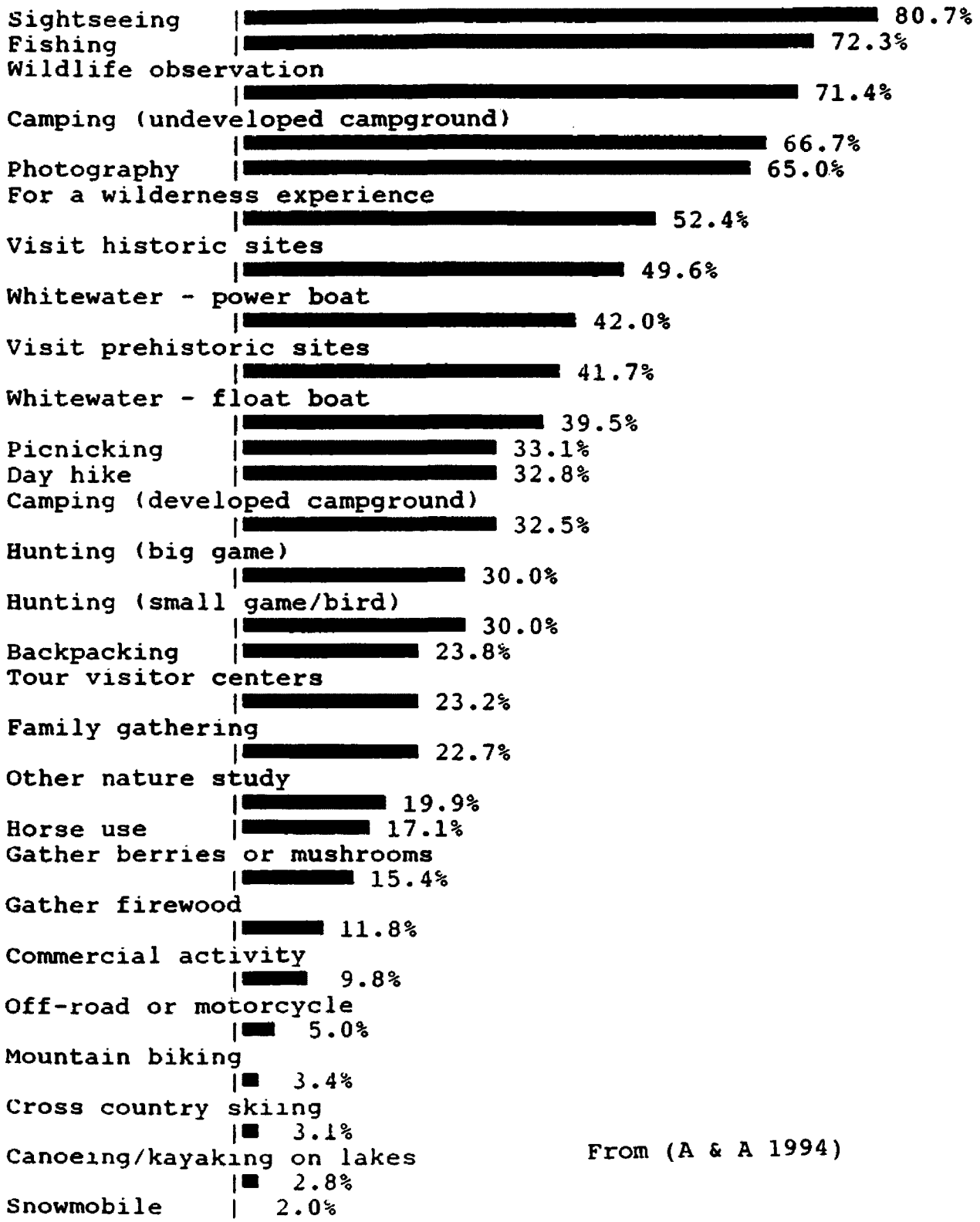
Scenery and naturalness are important components of a recreational experience. In surveys conducted over the years, sightseeing is always the number one reason HCNRA visitors cite for coming to the recreation area; consequently, activities that modify the natural quality of the landscape affect the recreationists' level of enjoyment.

The HCNRA Act directed that the recreation area be administered to provide recreation opportunities compatible with preservation of "rare combinations of terrestrial habitat and rare combinations of outstanding and diverse ecosystems." There is an inherent conflict in this "dual" mandate. There are many types of recreation, some of which are not compatible with ecosystem protection or with other types of recreation. It can be difficult to balance these competing management objectives.

Popular activities on the rim include hunting, camping in developed and undeveloped campsites, horse packing, firewood cutting, mushroom and berry picking, driving off-road, mountain biking, wildlife watching, photography and snowmobiling (see Figure 1). Some activities are motor-vehicle based and some are not, and there are bound to be

Figure 1

WHEN YOU VISIT THE HELLS CANYON NATIONAL RECREATION AREA, WHAT ACTVITIES DO YOU USUALLY PARTICIPATE IN?



From (A & A 1994)

conflicts between uses and users: it may be difficult to photograph elk quietly browsing, when motorcycles are operating nearby.

Motorized recreation opportunities on rim

Due to the high elevation of the rim and heavy winter snowfalls, the summer use period generally starts in mid-June when the snow melts, and ends in mid-November when the snows prevent access. However, the western rim is accessible in the winter to snowmobiles and cross-country skiers.

"Vehicle-based recreation opportunities are abundant on...Summit Ridge...where the open road densities are relatively high" (USFS 1993). Road 3965, the southern access onto the rim, is a paved, high standard road accessible by any motor vehicle (i.e., passenger cars and tour buses) that receives heavy day use on summer weekends and holidays. Overlooks, parking lots, restroom facilities, spur roads for four-wheeling, and developed and dispersed camping opportunities are all along the twenty-mile drive to Hells Canyon Overlook, which is at the head of McGraw Canyon. From here, to the currently-being-constructed P.O. Saddle campground, the road is good-quality gravel. The last few miles to Saulsberry Saddle and the wilderness boundary are a bit rougher, but still accessible to most vehicles.

Motorized access to the northern section of Hells Canyon's Oregon rim, is via Road 4240 through the tiny town

of Imnaha. Motorized use of this road dates back to the 1940's. This paved road offers incredible views into the Imnaha River Canyon and Horse Creek Canyon as it climbs east toward the rim. Twenty miles later at Saddle Creek Overlook and Campground, Hells Canyon comes into view. Another six miles to the Hat Point Overlook and Campground, with a recently reconstructed lookout tower and campground, and the visitor is rewarded with an "internationally recognized" view of the canyon (USDA 1996).

From here, Road 4240 is gravel, but easily driveable, north to Warnock Corral. Along Road 4240 are numerous dirt roads and spurs for motorized access through forests and meadows to the west. At Warnock Corral, the road (Forest "Trail" 1774) definitely becomes a "four wheel drive" road. Continuing north, this rutted, braided, two-track and its many spurs, large holes and detours, follows the canyon rim in and out of wilderness for sixteen miles where it dead-ends at Lord Flat.

Non-motorized recreation opportunities on the rim

Trails in the HCNRA evolved from old Indian routes, big game migration paths, then later, from access for grazing, mining and fire control. There are trails with access for a variety of users: hikers, horseback riders, mountain bikers, motorcyclists, ATV, snowmobile and four-wheel-drive users, and persons with disabilities. The Forest Service lists 925

miles of trails in the HCNRA with 694 on the Oregon side, but many of these trails are accessible by motorized vehicles, or unmaintained (USDA 1996). In addition, the majority of the hiking trails provide opportunities at the high end of the difficult range (USDA 1996). The network of maintained trails on the Oregon side of the Recreation Area follows major drainages from the rim to the Snake and Imnaha Rivers. There are several outstanding (but difficult) loop-trails beginning on the rim, dropping into the canyon to follow the Snake River and then climbing back out of the canyon to the rim.

Road 3965, after reaching the canyon rim at Overlook I, follows along the edge of the canyon to P.O. Saddle, and hiking opportunities are limited because Hells Canyon drops steeply off to the east. The Environmental Assessment prepared for Hells Canyon Overlook II in 1993 states that most visitors who drive road 3965 and stop at the viewpoints are looking for a place to view Hells Canyon with a minimum of physical exertion, and it is unlikely that these visitors would venture into the steep canyon (USDA 1993).

The end of Road 3965, where it meets the wilderness boundary at Saulsberry Saddle, is the first opportunity to hike a relatively level trail without being on a motorized road. This trail (the proposed Lookout Mountain Road) offers one of the few wilderness hikes along the Oregon rim of Hells Canyon. It follows Summit Ridge north for twelve miles

through forests and spring-dotted meadows, past Lookout Mountain, Squirrel Prarie and Freezeout Saddle, to connect with the Hat Point Road. Along this trail are views to the Wallowa and Seven Devils Mountains, with access to many side trails into Hells and Imnaha Canyons, and to Black Mountain- one of the most spectacular view-points on the western side of the Snake River.

In the north, from the Hat Point Road, the first non-motorized hiking trail with views of the canyon, is just before the Saddle Creek Overlook, and this is where the Lookout Mountain trail connects. Between here and Warnock Corral, there are two trails into Hells Canyon, and several along drainages to the west of Hat Point Road. At Warnock Corral, the road is actually called "The Western Rim Trail" (Forest Trail 1774) and is a designated National Recreation Trail. This road offers what would be one of Oregon's premier scenic hiking trails, if it were not for the motor vehicle access.

East of the Lord Flat Road is wilderness. West of Lord Flat Road, the Recreation Opportunity Spectrum rating is "semi-primitive non-motorized" (USDA 1996). Excluding the Lord Flat Road, this roadless area is part of the largest contiguous roadless tract of federal land in Oregon (Bailey 1997) (Map).

The purpose of a semi-primitive non-motorized setting is "to provide visitors with a high probability of getting away

from the sights and sounds of other people, to be independent, to enjoy nature, and to practice outdoor skills" (USDA 1996). Added noise, dust, and activity along the Lord Flat Road detracts from the remoteness of the area.

On a national and regional level, recreation demands are beginning to exceed opportunities in some types of settings, especially semi-primitive and primitive settings (USDA 1996). Although the majority of people responding to a survey conducted by the state of Oregon had visited "roaded natural" settings, over half prefer "primitive" or "semi-primitive" settings. Based on user surveys, people prefer the "primitive" and "semi-primitive" settings over developed areas by 40 percent (Pacific Northwest River Basins Outdoor Study for the states of Oregon, Washington, Idaho 1987, and Oregon State Comprehensive Outdoor Recreation Plan 1988-1993).

Because of increased demand for recreation opportunities offered in the primitive and semi-primitive settings, and because the Pacific Northwest contains a high proportion of those settings, "managers must seriously consider the impacts of any type of...development or use that would diminish the current supply" (USDA 1996). Undeveloped environments and primitive recreation opportunities will continue to decline as developed recreation opportunities increase (USDA 1996). Although pristine environments are easily lost, they are not easily reclaimed.

Wilderness

Wilderness Areas were created:

> For the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character.

In 1964, following eight years of legislative debate, negotiations, and revisions, President Lyndon B. Johnson signed into law our Wilderness Act. The National Wilderness Preservation System instantly classified over 9 million acres of Forest Service land as wilderness. Since then, nearly 100 million acres have been added as Wilderness lands under the management of the Forest Service, the National Park Service, the Bureau of Land Management, and the U.S. Fish and Wildlife Service (Watson 1998). The creation of the Wilderness Act reflected the values and concerns of the American people at the time, and emphasis was on the preservation and protection of land for the use and enjoyment by the American people then, and in future generations.

Wilderness is one of the multiple uses of public land management. In addition to providing undisturbed habitat, wilderness is part of the diversity in recreation

opportunites the Forest Service is mandated to provide. Recreation in wilderness was planned, is acceptable, and encouraged.

As humans, we value and care about the existence of wilderness for many reasons. On a personal-use level, we may go to wilderness for solitude or a challenging recreation experience. For some people, just knowing that wild places exist without man's presence is enough reason to protect wilderness. Also, the role of wilderness in the protection and enhancement of biodiversity has become more highly valued by society (Watson 1998).

As stated in the Wilderness Act, the character of wilderness "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable, and have outstanding opportunities for solitude or a primitive and unconfined type of recreation."

It is important to remember that Wilderness Areas are not separate parts of forests, but are "integral components of whole bio-social systems" and have little to do with the administrative boundaries we have drawn (Clark 1989). Of course, wildlife is dependent on wilderness--places free from excess habitat degradation and human intervention, but wildlife is also dependant on lands adjacent to wilderness for survival. "Wildlife in its search for food, cover, water and living space knows no bounds. It does not recognize our

artificial political boundaries, where we permit the ecological processes to go awry and ignore habitat needs" (Kelly 1989).

"Wilderness cannot survive as a pristine island within a deteriorating ecosystem" (Nelson 1989). Any threat to public lands is also a threat to the wilderness areas on those lands. Sights, sounds and activities originating outside of wilderness do not stop at the boundary. In Hells Canyon Wilderness, there is a barrage of sights, sounds and intrusions coming from outside the Wilderness boundary. The Snake River Corridor divides Hells Canyon Wilderness into two sections, and although designated Wild and Scenic, has become a freeway for jet-boats. Several hundred jet-boats will cruise up and down the Snake River each weekend in the summer season (Criley 1996). Motor vehicles can drive along seventy-six percent of the western edge of Hells Canyon Wilderness Area. These two avenues for motorized recreation vehicles cut through the heart of Hells Canyon Wilderness. Managing activities outside a wilderness boundary is as important as managing activities inside the wilderness (Botsford 1989).

In addition to disrupting wildlife habitat, Road 3965, the proposed Lookout Mountain extension, and the Lord Flat Road, have the potential to interrupt the solitude of wilderness users. The sight, sound, and smell of vehicles is apparent along the western wilderness boundary within a

"band" parallel to the road (UDSA 1993). The Hells Canyon Overlook II Environmental Assessment states that these effects on solitude are acceptable because "wilderness users expect a transition area from a human dominated environment to Wilderness when they enter or leave Wilderness" (USDA 1993).

Instead of the "transition area" inside the Hells Canyon Wilderness, the designated semi-primitive, non-motorized land to the west of the Lord Flat Road could provide a large "buffer zone" between the wilderness area and more developed land, but the motorized Lord Flat corridor divides the two non-motorized areas.

The EA goes on to say that since the terrain in this "transition area" is steep, it makes the area an "undesirable destination." Instead, wilderness users "pass through this band on their way to or from destinations within the wilderness interior." The implication here is that disturbance along the boundary is fine if people don't stay there.

What do the people want?

In 1992 and 1993, during the course of the planning and analysis process for the Hells Canyon Overlook II development, the Wallowa-Whitman randomly distributed two letters inviting comments on the proposed project. (The Overlook II project proposed the development of four

additional viewpoints and parking areas along Road 3965 between Overlook I and P.O. Saddle, reconstruction of several trailheads and camping areas. The development was not approved in its entirety, but some aspects of the proposal have been implemented).

Most respondents either lived in the local area or visited the area during hunting season. Generally, road closures were supported while recreation developments were opposed. Several respondents were concerned about over-developing the area and increasing additional visitation (USDA 1993). When the USFS asked the general public for comments on the Overlook II project, they received nine letters in support of the project, and 131 letters opposing Overlook II. Objectors included the Nez Perce Tribe, the Oregon Department of Fish and Wildlife, and the Oregon Hunters Association. The Forest Service admitted that the only parts of the Overlook II proposal that people strongly supported were proposed road closures in the area (HCPC 1997).

Several surveys have been conducted in the last few years, to assess public opinion on how the HCNRA is being managed. In 1994, the Forest Service commissioned A&A Research from Kalispell, Montana, to conduct a random-sample phone survey of people living in seventeen communities near Hells Canyon. Over 90 percent of the respondents felt that there is "enough or too much" motorized access in the HCNRA.

Only 9.5 percent of adults in the communities around the HCNRA felt there should be more motorized access to recreational opportunities in the HCNRA.

A&A Research also conducted a random-sample mail survey of regional and rim communities. To the question, "Do you feel that the amount of motorized accesss to the recreational opportunities within the HCNRA is about right, too much or not enough?" 40.9 percent said "about right," 41.1 percent answered "too much," and 16 percent said "not enough" (see Figure 2) (A&A Research 1994).

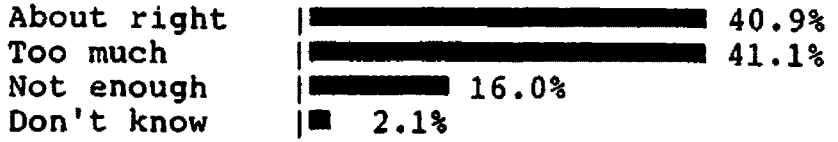
In the same study, when asked "Which human activities are not compatible with your idea of the 'best stewardship' of the HCNRA?" 42.2 percent of respondents said that "motorized recreation" was least compatible. Livestock grazing, timber management, jet/power boats, and motorized vehicle use were the next most common replies.

When asked by the same A&A survey, "How do you think the Forest Service is doing protecting wildlife habitat in the HCNRA," 54 percent responded "average" or "poor." When asked the same question about protecting designated wilderness in the HCNRA, again, 54 percent said "average" or "poor."

In 1995, Whitman College in Walla Walla, Washington, conducted a ramdom-sample mail survey of registered voters in Union, Baker, and Wallowa counties (see Figure 3). Over 85 percent of the people surveyed think there is enough or too much motorized recreation in the HCNRA. Only 13 percent of

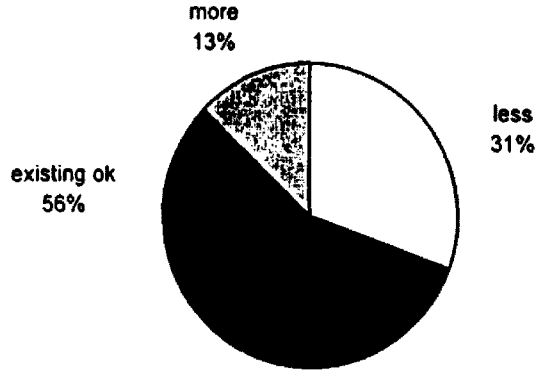
Figure 2

DO YOU FEEL THAT THE AMOUNT OF MOTORIZED ACCESS TO THE RECREATIONAL OPPORTUNITIES WITHIN THE HELLS CANYON NATIONAL RECREATION AREA IS--



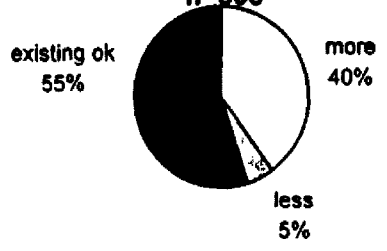
From (A & A 1994)

Figure 3 Motorized Recreation
n=599



From (Brick 1995)

Figure 4 Improved Backcountry Trails
n=598



From (Brick 1995)

adults responding to the survey in Oregon counties near the HCNRA thought there should be more motorized recreation in the HCNRA (Brick 1995).

When questioned about their opinion on the amount of improved backcountry trails, 40 percent of respondents wanted "more" trails (see figure 4) (Brick 1995).

In 1996, during the comment period for the new Comprehensive Management Plan, the Forest Service received 305 comment letters. Of the 171 letters that mentioned roads, 160 letters opposed any more roads in the HCNRA (94 percent)(HCPC 1997).

Summary

Recreation opportunites in a National Recreation Area should provide for a wide range of activities. Although there are many miles of trails in the HCNRA in general, possibilities for non-motorized trail-use are limited on the western rim. Furthermore, the roads currently on the western rim reduce the quality of existing non-motorized recreation opportunities, and wilderness values. Results of surveys have indicated that the local public is not in support of additional road building in the HCNRA. By closing the Lord Flat Road and retaining the non-motorized designation of the Lookout Mountain Road, the Forest Service would not only be responding to ecological needs, but also to human requests.

Chapter VI

Summary and Recommendations

This final chapter will provide a summary of the information presented in the preceeding chapters. The cumulative effects of development on the western rim will be discussed, and the political issues surrounding the Lookout Mountain Road and the Lord Flat Road will be revisited. Finally, a recommendation for access on the western rim will be proposed.

Cumulative effects

We have all watched our favorite places in the west gradually succumb to pressures of development, and public lands that have already been set aside for protection should be the places we don't have to worry about. We are told, "It's just a six-mile piece of road, and it won't make that much difference." But it is the cumulative effects of many seemingly small developments that eventually destroy even the most pristine places: "soil erosion, air pollution, water polution, aircraft noise pollution, over-crowding, excessive

roading, excessive timbering, excessive grazing, stream siltation, over-developmaent, habitat destrution, scenic degradation and the disappearance of biological diversity" (Nelson 1989).

The Forest Service, in each new development on the western rim, has stated that there would be no "forseeable further development" along the rim, but gradually, piece-by-piece, the rim is being motorized, roads improved, access increased and more lookouts developed.

In 1995, the Oregon Department of Fish and Wildlife expressed concern that "improved roads and facilities in the McGraw area will increase visitor use, which in time will promote additional developments to accomodate increased visitor demands" (Matthews 1995).

If we look at how each improvement for access on the western rim has led to increased visitor use and subsequent improvements, we can see that this sequence really does happen. (Unfortunately, there are not consistant usage statistics for the rim roads). In 1991, before improvements were made to Road 3965 and before Overlook I was built, there were approximately five cars a day on Road 3965 (early June to November). In 1992, during the year of construction, usage was estimated at twenty vehicle per day (USFS 1993). In 1993, electronic counters at Overlook I counted an average of 200 vehicles per day between June and September, after the road, parking lots to accomodate tour buses and large RV's,

and paths to additional viewpoints were paved. Overall, there were approximately 900 vehicles on Road 3965 in the summer of 1991 and approximately 12,780 in the 1994 summer season (Obrien 1996). In 1995, counts are available only for July, and there was an average of 271 vehicles per day (O'Brien 1995).

The road to Hat Point Overlook was resurfaced in 1992 also. This shortened the trip from Imnaha to Hat Point from two and a half hours to thirty minutes. Annual visitor count at Hat Point went from 1,200 in 1991 to 8,000 in 1994, and to 10,800 in 1995 (O'Brien 1995).

When a road is improved, there is an increase in vehicle use. If a new section of road is added, people will use it. "This is how people incrementally lose the ability to "get away" from motorization; how we incrementally forget how to walk even simple, flat rims; how we incrementally distance [ourselves] farther and farther from wildlife; and how we take wildlife habitat away even in public land areas that have been expressly apaprt for special attention to wildlife and ecosystems," Mary O'Brien.

Lookout Mountain Road

As Scott Stouder of the Oregon Hunters Association has commented, "In addition to this relentless assault on elk, deer and bighorn sheep, moving the Hells Canyon Wilderness boundary would eliminate any choice for citizens who would

hike or ride horses on this last piece of non-motorized rim. Our cultural obsession of viewing life through a bug-spattered windshield has taken us beyond habitat destruction...it leads us to think there is no other choice" (Stouder 1997).

Moving the Hells Canyon Wilderness boundary north of Saulsberry Saddle to accommodate the use of a road that is currently the only non-motorized trail on the western rim would have many consequences, from disturbance of localized animal populations and habitat, to disruption of regional migratory corridors, to the national implications of vulnerability of designated Wilderness to political manipulation.

In the 1993 Hells Canyon Overlook II Environmental Assessment, when considering alternatives for action, every alternative included "...validating the 1989 closure of the Lookout Mountain Road from P.O. Saddle to Lookout Moutain. The road was closed through an administrative order because several segments lie within Hells Canyon Wilderness. Based on the environmental analysis supporting this decision, this segment of the road will remain permanently closed to motorized travel. It will remain in its present condition and location, and it will be managed as a non-motorized trail" (USDA 1993).

In 1993, opening the Lookout Mountain Road was not even considered as an option. When the Bill to move the

Wilderness Boundary to allow motorized traffic on the Lookout Mountain Road was presented, the Forest Service did not strongly uphold the decision of three years prior. Instead, in a report prepared by WWNF wildlife biologist Tim Schommer it was stated that, if opened, acceptable usage rates for this road (Lookout) would be 0 to 15 cars a day (Schommer 1996). But with the road improvements that have occurred south of Saulsberry Saddle, and documenting the resulting increases in vehicular traffic, it would be impossible to ensure that traffic would remain at this level.

The Oregon Department of Fish and Wildlife has been opposed to the Lookout Mountain Road for years. "It's very unusual for us to take a position on a specific road. But from a wildlife perspective, this is an important piece of real estate, particularly when you consider how much of the rim already has roads," Craig Ely, ODFW biologist (Stouder 1997).

So who wants this road? CORR (the Committee to Open the Rim Road) is a group of citizens from Baker City, Oregon, led by local physician, George Burns. The Baker City Chamber of Commerce, and several Oregon politicians have joined the efforts to move the wilderness boundary.

When presented to Congress, the Bill stated that moving the boundary would be a "minor adjustment" to exclude a road "inadvertantly included in the wilderness" (see Appendix A and Appendix B for the history of this "error" in mapping).

However, Regional Forester John Butruille noted that, "Even though the adjustments appear to be minor, there is potential for escalation to national controversy" (Butruille 1991).

George Burns of Baker City commented, "This is one of the most beautiful areas in Oregon, and it has a right to be seen by everyone" (Oregonian August 18, 1997)

Oregon Representative Bob Smith commented, "Congress created the (Hells Canyon National) Recreation area to enhance and preserve public enjoyment of this valuable resource, not to cut off access to the area" (The Observer July 17, 1997). "Somewhere along the line we have to accomodate all the population, not just one segment," (Oregonian August 18, 1997).

CORR cites motorized access to scenic views as the reason for wanting the Lookout Mountain Road, even though 76 percent of the rim is already accessible to motor vehicles. The forest to the west of the Lookout Mountain Road is designated "dispersed recreation/timber management," although timber removal has not been cited as a purpose for the road.

Lord Flat Road

Increasingly the Clinton administration is urging federal agencies to close roads that are in sensitive areas, and the overall network of roads on federal lands is being reduced. Robin Silver of the Southwest Center for Biological Diversity commented, "As more people become offended by the

fact that public officials and land management agencies are promoting the destruction of wildlife and habitat, more and more people will get upset, and things will change" (Aleshire 1998). In November, 1997, President Clinton stated that roadless areas should be managed through science, not politics. New Forest Service Chief, Mike Dombeck, is attempting to further this agenda. "Roads are our biggest environmental problem," said Dombeck. "We cannot meet the needs of the people until we have provided for the health of the land" (Greenwire 1998).

Vic Coggins and the Oregon Department of Fish and Wildlife have supported closing the Lord Flat Road for many years. Every year ODFW surveys hunters and consistently, most hunters oppose driving on roads to hunt (O'Brien 1994). The Lord Flat Road was closed for several years in the 1980's and Coggins said that alot of hunters don't like the road being open again: most hunters had gotten used to Lord Flat Road being closed. A number of hunters have told him that they don't see as much wildlife as they did when the Lord Flat Road was closed. Just because a road has been open and driven on, even if for fifty years, does not necessarily mean that it must continue to be open, if resource damage has occurred.

Recommendations

"There are getting to be fewer and fewer 'backcountry' experiences in the Pacific Northwest and the continental United States" (USDA 1996). The proposed Lookout Mountain Road is currently the only non-motorized section of the rim. The rim area surrounding the Lord Flat Road provides superb backcountry opportunities. Managers must develop a strategy that will protect resources while still providing recreation opportunities. The Forest Service now has the opportunity to respond to results of well-researched wildlife studies, to public values related to recreation and environmental protection, and to the laws governing HCNRA management, by opposing the Lookout Mountain Road proposal and consider closing the Lord Flat Road.

The western rim of Hells Canyon has spectacular scenic values, has an even, lateral gradient, and would be an excellent trail location. The twelve mile Lookout Mountain section is bounded on each end by high-standard recreation access roads, ideal for one, two or multi-day horseback rides or hikes. Closing the Lord Flat road to motor vehicles would provide a sixteen mile non-motorized backcountry recreation opportunity on the rim, while protecting wildlife habitat and wilderness values, and preventing further habitat degradation resulting from continued, and potentially increasing, motor vehicle use.

If there is political pressure on the managing agency to open the Lookout Mountain Road, then in order to affect change in management direction, the Wallowa-Whitman National Forest could initiate a collaborative process, calling upon a variety of user groups to participate (i.e., the Oregon Department of Fish and Wildlife, the Oregon Hunters Association, ranchers, off-road vehicle users, Hells Canyon Preservation Council, outfitters, the Nez Perce Tribe, CORR, hiking representatives, mountain bike representatives, horse-back riding representatives, etc.). The collaborative method has been implemented in recent years to resolve natural resource conflicts, and can provide a solution acceptable to the majority of interests.

There is sufficient information from scientific studies and federal land management objective statements to legitimize protection of the western rim of the Hells Canyon National Recreation Area from increased road access and motor vehicle intrusions, and with a growing constituency supporting ecosystem protection, the changes in management direction can be made.

Appendix A

105TH CONGRESS
1ST SESSION

H. R. 799
S. 1049

IN THE HOUSE OF REPRESENTATIVES

Mr. SMITH of Oregon introduced the following bill; which was referred to the Committee on _____

A BILL

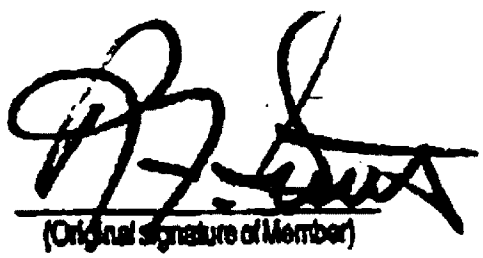
To require the Secretary of Agriculture to make a minor adjustment in the exterior boundary of the Hells Canyon Wilderness in the States of Oregon and Idaho to exclude an established Forest Service road inadvertently included in the wilderness.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. BOUNDARY ADJUSTMENT, HELLS CANYON WILDERNESS, HELLS CANYON NATIONAL RECREATION AREA.

The Secretary of Agriculture shall revise the map and detailed boundary description of the Hells Canyon Wilder-

ness designated by section 2 of Public Law 94–199 (16 U.S.C. 460gg–1) to exclude Forest Service Road 3965 from the wilderness area so that the road may continue to be used by motorized vehicles to its historical terminus at Squirrel Prairie, as was the original intent of the Congress. The road shall continue to be included in the Hells Canyon National Recreation Area also established by such Act.



Appendix B

CHRONOLOGY OF WILDERNESS BOUNDARY DISPUTE
Forest Road 3965-"The Lookout Mountain Road"
Forest Road 1774-"The Lord Flat Road"

1973

Freezeout Fire. The Lookout Mountain Road (Forest Road 3965) is created by movement of fire-fighting equipment during fire-fighting efforts at Freezeout Saddle and used to transport logs from the fire salvage timber sale.

1973 December

John Rogers, then-supervisor of the Wallowa-Whitman National Forest, clarifies that no activity that occurred during the fire suppression efforts or the timber salvage would be used as a reason to disqualify any area from Wilderness designation.

1975 December 31

Hells Canyon National Recreation Area and Hells Canyon Wilderness Area established by Public Law 94-199. The western boundary of the Wilderness Area between Saulsberry Saddle and Freezeout Saddle, as described and shown on Congressional maps, was located along the old Hells Canyon/Seven Devils Scenic Area boundary, which is

a line 300 feet offset to the west from the hydrologic divide between the Snake and Imnaha Rivers. The western boundary from Warnock Corral north to the Lord Flat Airstrip was to follow the sinuosities of Summit Ridge- the hydrologic divide between the Snake and Imnaha Rivers. Both roads stay open.

1977 May 16

First boundary dispute. A Forest Service memo discussing a predator control program stated:

> "The boundary in question follows the hydrologic divide between Saulsberry Saddle and Freeezeout Saddle."

1977 July 21

Then-Senator Robert Packwood, the primary author of P.L.94-199, wrote Assistant Secretary of Agriculture Rupert Cutler objecting to the May 16, 1977 USFS description of the boundary:

> "My concern focuses on the stretch of the wilderness boundary between Saulsberry Saddle and Freezeout Saddle...The Forest Service is preparing a detailed boundary description placing the wilderness boundary between these points on the hydrologic divide between the two river drainages. This is not the boundary intended by Congress. The boundary in this area is coterminous with the long-established boundary of the old 'Hells Canyon/Seven Devils Scenic Area.' That is, the boundary is 300 feet downslope on the Imnaha River side of the divide.

1978 February

In order to clarify the exact location of the Wilderness Boundary between Saulsberry and Freezeout Saddles, the Forest Service publishes a document entitled *Proposed Wilderness Boundaries for the Hells Canyon Wilderness Study Area, Hells Canyon Wilderness Area, Hells Canyon National Recreation Area.* The document ignored Senator Packwoods' comments and stated:

> Between Saulsberry Saddle and Freezeout Saddle the boundary (depicted on the official map created by Congress to show the Hells Canyon Wilderness Area boundary) is shown as following the previously established Hells Canyon/Seven Devils Scenic Area boundary, west of the hydrologic divide.
>
> However, investigation by the planning team and the Forest Service indicates the apparent legislative intent was to locate the boundary on the hydrologic divide...the legislative history discussed the concept of a rim-to-rim wilderness including only the face of Hells Canyon.
>
> The Forest Service feels the hydrologic divide accurately reflects the intent of Congress. Following the Hells Canyon/Seven Devils boundary west of the ridgetop was apparently a drafting mistake. The draftsperson apparently thought the scenic area boundary was on the ridgetop. The Forest Service feels this location [along the ridge] is best because: (1) it meets the intent of Congress, and (2) it provides for some management options...The benchland along the hydrologic divide

would be studied for a variety of management alternatives, including transportation routes and viewpoints of Hells Canyon, as well as wilderness suitability.

The agency decides, and is clear, that the hydrologic divide between Saulsberry Saddle and Freezeout Saddle was intended to be, and should be the western boundary, and Congress passes S. 2996, and H.R. 12398. Forest Road 3965, a dirt track known as the Lookout Mountain Road, and Forest Road 1774, also a dirt track known as the Lord Flat Road, are never mentioned as being either inside or out of the Wilderness

When the boundary was redrawn in 1978, Congress again drew the roads within the Wilderness. Forest Service officials left the Lookout Mountain Road open as a two-track jeep road because they thought it was meant to be excluded.

1989

During a fire salvage in 1989, the Forest Service "discovers" that segments of the road to Lookout Mountain actually are in the Wilderness. The road is closed with a gate at PO Saddle.

The Lord Flat Road is also closed at the Warnock Corral trailhead, where the road enters the Wilderness due to a conflict between the Wilderness boundary and the road location.

1991 June 19

Senators Mark Hatfield and Bob Packwood and Representaive Bob Smith send a letter to Bob Richmond (then supervisor of the Wallowa-Whitman National Forest) recommending that he re-describe the western boundary of the HCWA, moving it "30 feet east" to allow vehicle use on "two existing roads"- the road from Warnock Corral to Lord Flat and from Saulsberry Saddle to Marks Cabin (just past Squirrel Prairie to the north and west)

1992 July 22

Wallowa-Whitman Forest Ranger Ed Cole submits a proposal to construct new road segments outside of the Wilderness boundary at Warnock Corral to replace the segments inside the Wilderness.

1992 July 31

HCPC appeals the proposal for the Lord Flat Road reconstruction. HCPC does not receive a response from WWNF until August 7, 1992.

1992 August 11

The Wallowa-Whitman National Forest released a memo stating that during the week of August 3,1992, they relocated a 1.5 mile section of the Lord Flat Road just north of Warnock Corral, reopening the road to motorized vehicles. (They did this without an EA as a categorical

exclusion from NEPA). The road construction in an area classified as RARE II roadless area without an EA or EIS, is in violation of NEPA and therefore illegal.

1997 February

Representative Bob Smith (R-OR) and Senator Gordon Smith (R-OR) introduce Bills H.R. 799 and S. 1049 that would declassify as wilderness, the portion along the rim in Hells Canyon Wilderness Area between Freezeout Saddle and Lookout Mountain so as to exclude Road 3965. These Bills contend that Forest Road 3965 (which having been closed for 8 years is now physically more like a trail) was "inadvertently included" within the Hells Canyon Wilderness Area.

Appendix C

Public Law 94-199
94th Congress, S. 322
December 31, 1975

An Act

To establish the Hells Canyon National Recreation Area in the States of Oregon and Idaho, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) to assure that the natural beauty, and historical and archeological values of the Hells Canyon area and the seventy-one-mile segment of the Snake River between Hells Canyon Dam and the Oregon-Washington border, together with portions of certain of its tributaries and adjacent lands, are preserved for this and future generations, and that the recreational and ecologic values and public enjoyment of the area are thereby enhanced, there is hereby established the Hells Canyon National Recreation Area.

Hells Canyon National Recreation Area, Oreg.-Idaho. Establishment. 16 USC 460gg.

(b) The Hells Canyon National Recreation Area (hereinafter referred to as the "recreation area"), which includes the Hells Canyon Wilderness (hereinafter referred to as the "wilderness"), the components of the Wild and Scenic Rivers System designated in section 3 of this Act, and the wilderness study areas designated in subsections 8(d) of this Act, shall comprise the lands and waters generally depicted on the map entitled "Hells Canyon National Recreation Area" dated September 1975, which shall be on file and available for public inspection in the office of the Chief, Forest Service, United States Department of Agriculture. The Secretary of Agriculture (hereinafter referred to as "the Secretary"), shall, as soon as practicable, but no later than eighteen months after the date of enactment of this Act, publish a detailed boundary description of the recreation area, the wilderness study areas designated in subsection 8(d) of this Act, and the wilderness established in section 2 of this Act in the Federal Register.

Publication in Federal Register.

SEC. 2. (a) The lands depicted as the "Hells Canyon Wilderness" on the map referred to in subsection 1(b) of this Act are hereby designated as wilderness.

Hells Canyon Wilderness, designation. 16 USC 460gg-1.

(b) The wilderness designated by this Act shall be administered by the Secretary in accordance with the provisions of this Act or in accordance with the provisions of the Wilderness Act (78 Stat. 890), whichever is the more restrictive, except that any reference in such provisions of the Wilderness Act to the effective date of that Act shall be deemed to be a reference to the effective date of this Act. The provisions of section 9(b) and section 11 of this Act shall apply to the wilderness. The Secretary shall make such boundary revisions to the wilderness as may be necessary due to the exercise of his authority under subsection 3(b) of this Act.

16 USC 1131 note.

SEC. 3. (a) Subsection 3(a) of the Wild and Scenic Rivers Act (82 Stat. 906) is hereby amended by adding at the end thereof the following clauses:

16 USC 1274.

"(11) Rapid River, Idaho.—The segment from the headwaters of the main stem to the national forest boundary and the segment of the West Fork from the wilderness boundary downstream to the confluence with the main stem, as a wild river.

"(12) Snake, Idaho and Oregon.—The segment from Hells Canyon Dam downstream to Pittsburgh Landing, as a wild river; and the

segment from Pittsburgh Landing downstream to an eastward extension of the north boundary of section 1, township 5 north, range 47 east, Willamette meridian, as a scenic river.".

16 USC 1274 note.

(b) The segments of the Snake River and the Rapid River designated as wild or scenic river areas by this Act shall be administered by the Secretary in accordance with the provisions of the Wild and Scenic Rivers Act (82 Stat. 906), as amended, and the Secretary shall establish detailed boundaries of the Snake River segments thereof in accordance with subsection 3(b) of that Act: *Provided*, That the Secretary shall establish a corridor along the segments of the Rapid River and may not undertake or permit to be undertaken any activities on adjacent public lands which would impair the water quality of the Rapid River segment: *Provided further*, That the Secretary is authorized to make such minor boundary revisions in the corridors as he deems necessary for the provision of such facilities as are permitted under the applicable provisions of the Wild and Scenic Rivers Act (82 Stat. 906).

16 USC 1271 note.

16 USC 1274.

16 USC 460gg-2.

SEC. 4. (a) Notwithstanding any other provision of law, or any authorization heretofore given pursuant to law, the Federal Power Commission may not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project work under the Federal Power Act (41 Stat. 1063), as amended (16 U.S.C. 791a et seq.), within the recreation area: *Provided*, That the provisions of the Federal Power Act (41 Stat. 1063) shall continue to apply to any project (as defined in such Act), and all of the facilities and improvements required or used in connection with the operation and maintenance of said project, in existence within the recreation area which project is already constructed or under construction on the date of enactment of this Act.

16 USC 791a.

(b) No department or agency of the United States may assist by loan, grant, license, or otherwise the construction of any water resource facility within the recreation area which the Secretary determines would have a direct and adverse effect on the values for which the waters of the area are protected.

16 USC 1276.

SEC. 5. (a) Section 5(a) of the Act of October 2, 1968 (82 Stat. 906), as amended, is further amended by adding the following new paragraph:

"(57) Snake, Washington, Oregon, and Idaho: the segment from an eastward extension of the north boundary of section 1, township 5 north, range 47 east, Willamette meridian, downstream to the town of Asotin, Washington.".

Asotin Dam, deauthorization.

(b) The Asotin Dam, authorized under the provisions of the Flood Control Act of 1962 (76 Stat. 1173), is hereby deauthorized.

16 USC 460gg-3.

SEC. 6. (a) No provision of the Wild and Scenic Rivers Act (82 Stat. 906), nor of this Act, nor any guidelines, rules, or regulations issued hereunder, shall in any way limit, restrict, or conflict with present and future use of the waters of the Snake River and its tributaries upstream from the boundaries of the Hells Canyon National Recreation Area created hereby, for beneficial uses, whether consumptive or nonconsumptive, now or hereafter existing, including, but not limited to, domestic, municipal, stockwater, irrigation, mining, power, or industrial uses.

(b) No flow requirements of any kind may be imposed on the waters of the Snake River below Hells Canyon Dam under the provisions of the Wild and Scenic Rivers Act (82 Stat. 906), of this Act, or any guidelines, rules, or regulations adopted pursuant thereto.

Administration.

16 USC 460gg-4.

SEC. 7. Except as otherwise provided in sections 2 and 3 of this Act, and subject to the provisions of section 10 of this Act, the Secretary

shall administer the recreation area in accordance with the laws, rules, and regulations applicable to the national forests for public outdoor recreation in a manner compatible with the following objectives:

(1) the maintenance and protection of the free-flowing nature of the rivers within the recreation area;

(2) conservation of scenic, wilderness, cultural, scientific, and other values contributing to the public benefit;

(3) preservation, especially in the area generally known as Hells Canyon, of all features and peculiarities believed to be biologically unique including, but not limited to, rare and endemic plant species, rare combinations of aquatic, terrestrial, and atmospheric habitats, and the rare combinations of outstanding and diverse ecosystems and parts of ecosystems associated therewith;

(4) protection and maintenance of fish and wildlife habitat;

(5) protection of archeological and paleontologic sites and interpretation of these sites for the public benefit and knowledge insofar as it is compatible with protection;

(6) preservation and restoration of historic sites associated with and typifying the economic and social history of the region and the American West; and

(7) such management, utilization, and disposal of natural resources on federally owned lands, including, but not limited to, timber harvesting by selective cutting, mining, and grazing and the continuation of such existing uses and developments as are compatible with the provisions of this Act.

Management plan, submittal to congressional committees. 16 USC 460gg-5.

SEC. 8. (a) Within five years from the date of enactment of this Act the Secretary shall develop and submit to the Committees on Interior and Insular Affairs of the United States Senate and House of Representatives a comprehensive management plan for the recreation area which shall provide for a broad range of land uses and recreation opportunities.

(b) In the development of such plan, the Secretary shall consider the historic, archeological, and paleontological resources within the recreation area which offer significant opportunities for anthropological research. The Secretary shall inventory such resources and may recommend such areas as he deems suitable for listing in the National Register of Historic Places. The Secretary's comprehensive plan shall include recommendations for future protection and controlled research use of all such resources.

Scenic roads, study.

(c) The Secretary shall, as a part of his comprehensive planning process, conduct a detailed study of the need for, and alternative routes of, scenic roads and other means of transit to and within the recreation area. In conducting such study the Secretary shall consider the alternative for upgrading existing roads and shall, in particular, study the need for and alternative routes of roads or other means of transit providing access to scenic views of and from the Western rim of Hells Canyon.

Wilderness suitability review, report to President.

Recommendations to Congress.

(d) The Secretary shall review, as to their suitability or nonsuitability for preservation as wilderness, the areas generally depicted on the map referred to in section 1 of this Act as the "Lord Flat-Somers Point Plateau Wilderness Study Area", and the "West Side Reservoir Face Wilderness Study Area", and the "Mountain Sheep Wilderness Study Area" and report his findings to the President. The Secretary shall complete his review and the President shall, within five years from the date of enactment of this Act, advise the United States Senate and House of Representatives of his recommendations with respect to the designation of lands within such area as wilderness. In conducting his review the Secretary shall comply with the provisions of section

Public notice of meetings.

16 USC 1132.

3(d) of the Wilderness Act and shall give public notice at least sixty days in advance of any hearing or other public meeting concerning the wilderness study area. The Secretary shall administer all Federal lands within the study areas so as not to preclude their possible future designation by the Congress as wilderness. Nothing contained herein shall limit the President in proposing, as part of this recommendation to Congress the designation as wilderness of any additional area within the recreation area which is predominately of wilderness value.

(e) In conducting the reviews and preparing the comprehensive management plan required by this section, the Secretary shall provide for full public participation and shall consider the views of all interested agencies, organizations, and individuals including but not limited to, the Nez Perce Tribe of Indians, and the States of Idaho, Oregon, and Washington. The Secretaries or Directors of all Federal departments, agencies, and commissions having a relevant expertise are hereby authorized and directed to cooperate with the Secretary in his review and to make such studies as the Secretary may request on a cost reimbursable basis.

(f) Such activities as are as compatible with the provisions of this Act, but not limited to, timber harvesting by selective cutting, mining, and grazing may continue during development of the comprehensive management plan, at current levels of activity and in areas of such activity at the time of enactment of this Act. Further, in development of the management plan, the Secretary shall give full consideration to continuation of these ongoing activities in their respective areas.

Land acquisition.
16 USC 460gg-6.

SEC. 9. (a) The Secretary is authorized to acquire such lands or interests in land (including, but not limited to, scenic easements) as he deems necessary to accomplish the purposes of this Act by purchase with donated or appropriated funds with the consent of the owner, donation, or exchange.

(b) The Secretary is further authorized to acquire by purchase with donated or appropriated funds such lands or interests in lands without the consent of the owner only if (1) he deems that all reasonable efforts to acquire such lands or interests therein by negotiation have failed, and (2) the total acreage of all other lands within the recreation area to which he has acquired fee simple title or, lesser interests therein without the consent of the owner is less than 5 per centum of the total acreage which is privately owned within the recreation area on the date of enactment of this Act: *Provided*, That the Secretary may acquire scenic easements in lands without the consent of the owner and without restriction to such 5 per centum limitation: *Provided further*, That the Secretary may only acquire scenic easements in lands without the consent of the owner after the date of publication of the regulations required by section 10 of this Act when he determines that such lands are being used, or are in imminent danger of being used, in a manner incompatible with such regulations.

Scenic easements.

(c) Any land or interest in land owned by the State of Oregon or any of its political subdivisions may be acquired only by donation. Any land or interest in land owned by the State of Idaho or any of its political subdivisions may be acquired only by donation or exchange.

"Scenic easement."

(d) As used in this Act the term "scenic easement" means the right to control the use of land in order to protect esthetic values for the purposes of this Act, but shall not preclude the continuation of any farming or pastoral use exercised by the owner as of the date of enactment of this Act.

(e) The Secretary shall give prompt and careful consideration to any offer made by a person owning land within the recreation area

to sell such land to the United States. The Secretary shall specifically consider any hardship to such person which might result from an undue delay in acquiring his property.

(f) In exercising his authority to acquire property by exchange, the Secretary may accept title to any non-Federal property, or interests therein, located within the recreation area and, notwithstanding any other provision of law, he may convey in exchange therefor any federally owned property within the same State which he classifies as suitable for exchange and which is under his administrative jurisdiction: *Provided*, That the values of the properties so exchanged shall be approximately equal, or if they are not approximately equal, they shall be equalized by the payment of cash to the grantor or to the United States as the circumstances require. In the exercise of his exchange authority, the Secretary may utilize authorities and procedures available to him in connection with exchanges of national forest lands.

(g) Notwithstanding any other provision of law, the Secretary is authorized to acquire mineral interests in lands within the recreation area, with or without the consent of the owner. Upon acquisition of any such interest, the lands and/or minerals covered by such interest are by this Act withdrawn from entry or appropriation under the United States mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto.

(h) Notwithstanding any other provision of law, any Federal property located within the recreation area may, with the concurrence of the agency having custody thereof, be transferred without consideration to the administrative jurisdiction of the Secretary for use by him in carrying out the purposes of this Act. Lands acquired by the Secretary or transferred to his administrative jurisdiction within the recreation area shall become parts of the national forest within or adjacent to which they are located.

Rules and regulations. 16 USC 460gg-7.

SEC. 10. The Secretary shall promulgate, and may amend, such rules and regulations as he deems necessary to accomplish the purposes of this Act. Such rules and regulations shall include, but are not limited to—

(a) standards for the use and development of privately owned property within the recreation area, which rules or regulations the Secretary may, to the extent he deems advisable, implement with the authorities delegated to him in section 9 of this Act, and which may differ among the various parcels of land within the recreation area;

(b) standards and guidelines to insure the full protection and preservation of the historic, archeological, and paleontological resources in the recreation area;

(c) provision for the control of the use of motorized and mechanical equipment for transportation over, or alteration of, the surface of any Federal land within the recreation area;

(d) provision for the control of the use and number of motorized and nonmotorized river craft: *Provided*, That the use of such craft is hereby recognized as a valid use of the Snake River within the recreation area; and

(e) standards for such management, utilization, and disposal of natural resources on federally owned lands, including but not limited to, timber harvesting by selective cutting, mining, and grazing and the continuation of such existing uses and developments as are compatible with the provisions of this Act.

16 USC 460gg-8.
16 USC 1133.

SEC. 11. Notwithstanding the provisions of section 4(d)(2) of the Wilderness Act and subject to valid existing rights, all Federal lands located in the recreation area are hereby withdrawn from all forms of location, entry, and patent under the mining laws of the United States, and from disposition under all laws pertaining to mineral leasing and all amendments thereto.

Hunting and fishing.
16 USC 460gg-9.

SEC. 12. The Secretary shall permit hunting and fishing on lands and waters under his jurisdiction within the boundaries of the recreation area in accordance with applicable laws of the United States and the States wherein the lands and waters are located except that the Secretary may designate zones where, and establish periods when, no hunting or fishing shall be permitted for reasons for public safety, administration, or public use and enjoyment. Except in emergencies, any regulations of the Secretary pursuant to this section shall be put into effect only after consultation with the appropriate State fish and game department.

Traditional and valid uses.
16 USC 460gg-10.

SEC. 13. Ranching, grazing, farming, timber harvesting, and the occupation of homes and lands associated therewith, as they exist on the date of enactment of this Act, are recognized as traditional and valid uses of the recreation area.

Civil and criminal jurisdiction.
16 USC 460gg-11.

SEC. 14. Nothing in this Act shall diminish, enlarge, or modify any right of the States of Idaho, Oregon, or any political subdivisions thereof, to exercise civil and criminal jurisdiction within the recreation area or of rights to tax persons, corporations, franchises, or property, including mineral or other interests, in or on lands or waters within the recreation area.

16 USC 460gg-12.

SEC. 15. The Secretary may cooperate with other Federal agencies, with State and local public agencies, and with private individuals and agencies in the development and operation of facilities and services in the area in furtherance of the purposes of this Act, including, but not limited to, restoration and maintenance of the historic setting and background of towns and settlements within the recreation area.

Appropriation authorization.
16 USC 460gg-13.

SEC. 16. (a) There is hereby authorized to be appropriated the sum of not more than $10,000,000 for the acquisition of lands and interests in lands within the recreation area.

(b) There is hereby authorized to be appropriated the sum of not more than $10,000,000 for the development of recreation facilities within the recreation area.

(c) There is hereby authorized to be appropriated the sum of not more than $1,500,000 for the inventory, identification, development, and protection of the historic and archeological sites described in section 5 of this Act.

Separability.
16 USC 460gg note.

SEC. 17. If any provision of this Act is declared to be invalid, such declaration shall not affect the validity of any other provision hereof.

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Bibliography

Ashworth, William. 1977. *Hells Canyon: The deepest gorge on Earth.* Hawthorn Books, Inc. New York.

Bailey, Ric. 1993. Letter to Gary Kahn. February 10, 1993.

Banci, Vivian. 1994. "Wolverine." pp. 99-127. In Ruggiero, L.F., K.B. Aubry, S.W. Buskirk, L.J. Lyon and W.J. Zielinski, tech. eds. 1994. *The scientific basis for conserving forest carnivores: American marten, fisher, lynx and wolverine in the western United States.* General Technical Report RM-254. Ft. Collins, CO: USDA Forest Service, Rocky Mt. Forest and Range Expt. Station. 184 pp.

Black, Hugh, Richard J. Scherzinger and Jack Ward Thomas. 1976. "Relationships of Rocky Mountain elk and Rocky Mountain mule deer habitat to timber management in the Blue Mountains of Oregon and Washington." In *Elk, Logging, Roads Symposium Proceedings.* December 16-17, 1976, pp. 11-31.

Botsford, Bruce F. and Joe L. Ashor. 1989. "Managing the recreation settings, activities and facilities adjacent to the Bear Trap Canyon Wilderness." In *Managing America's Enduring Wilderness Resource,* edited by David W. Lime. St. Paul: University of Minnesota Press.

Burbridge, William R. and Don J. Neff. 1976. "Coconino National Forest - Arizona Game and Fish Department cooperative roads/wildlife study." In *Elk, Logging, Roads Symposium Proceedings.* December 16-17, 1976, pp. 44-57.

Butruille, John. 1991. Letter to Forest Service Chief dated September 12. 1991.

Christensen, Alan G., L. Jack Lyon and James W. Unsworth. 1993. *Elk Management in the Northern Region: Considerations in Forest Plan Updates or Revisions.* United States Department of Agriculture. Forest Service. General Technical Report INT-303.

Clark, Roger N. and Richard F. Buscher. 1989. "Managing Lands Adjacent to Wilderness." In *Managing America's Enduring*

Wilderness Resource, edited by David W. Lime. St. Paul: University of Minnesota Press.

Coggins, Vic. 1997. Letter to Scott Stouder. Sept. 9, 1997.

Enderson, James H. and Jerry Craig. 1974. "Status of the peregrine falcon in the Rocky Mountains in 1973." *The Auk*. 91:727-736.

Fege, Anne S. 1989. "The Federal Role in Linking Tourism and Wilderness." In *Managing America's Enduring Wilderness Resource*, edited by David W. Lime. St. Paul: University of Minnesota Press.

Greenwire Electronic News. January 23, 1998.

Harris, Larry. 1984. *The Fragmented Forest: Island Biogeography Theory and the Preservation of Biotic Diversity*. University of Chicago Press. Chicago.

Hells Canyon CMP Tracking Group. 1995. "Native Ecosystem Alternative (Draft III).

HCPC. 1997. "Opposition to H.R. 838 & S. 360: Legislation to Void Controls Over Jet Boat Use of the Snake Wild and Scenic River, and Opposition to H.R. 799 & S. 1049: Legislation to Declassify Part Of the Hells Canyon Wilderness Area to Allow Vehicular Traffic on an Old Fire Road." Hells Canyon Preservation Council. Joseph, OR.

Henny, Charles J. and Martin W. Nelson. 1981. "Decline and present status of breeding peregrine falcon in Oregon. *The Murrelet*. 62:43-53.

High Country News. 1998. "A bare-knuckled trio goes after the Forest Service." 3/30/98. Paonia, CO.

Hornocker, Maurice G. and Howard S. Hahn. 1980. "Ecology of the Wolverine in northwestern Montana." *Canadian Journal of Zoology*. 59:1286.

Kelly, Joyce M., Tom France and Susan Key. 1989. "Wildlife Knows No Bounds," In *Managing America's Enduring Wilderness Resource*, edited by David W. Lime. St. Paul: University of Minnesota Press.

Knight, Richard L. and Kevin J. Gutzwiller. 1995. *Wildlife and Recreationists Coexistence through Management and Research.* Island Press. Washington, D.C. 372 pp.

Lyon, L. Jack. 1979. "Habitat effectiveness for elk as influenced by roads and cover." *Journal of Forestry.* 77(10):658-670.

Marshall, David B. 1986. Oregon Nongame Wildlife Management Plan. Oregon Department of Fish and Wildlife.

Masson, W.V. and Robert U. Mace. 1962. Upland Game Birds. Oregon State Game Commission on Wildlife. Bulletin No. 5.

Matthews, Pat. Letter to Ed Cole. September 20, 1995.

Nelson, Gaylord. 1989. "The public lands: An endangered species." In *Managing America's Enduring Wilderness Resource*, edited by David W. Lime. St. Paul: University of Minnesota Press.

Noss, Reed F. 1996. "Soul of the Wilderness." *International Journal of Wilderness.* 2(2):5-8.

Nowak, Ronald M. 1973. "Return of the Wolverine." *National Parks and Conservation Magazine.* February, 1973:20-23.

O'Brien, Mary. 1994. Letter to Gary Kahn. October 19, 1994.

O'Brien, Mary. 1995. Letter to David Robertson. December 10, 1995.

O'Brien, Mary. 1996. Letter to Robert Richmond. January 17, 1996.

O'Brien, Mary. 1997. Project information for Environmental Studies 501. University of Montana. Missoula.

O'Brien, Mary. 1998. Email to Debra Dickey.

Perry, Charles and Robert Overly. 1976. "Impact of roads on big game distribution in portions of the Blue Mountains of Washington." In *Elk, Logging, Roads Symposium Proceedings.* December 16-17, 1976, pp. 62-68.

Richie, Deborah W. 1981. "Troubled Waters, Threatened Forests: Hells Canyon National Recreation Area." Master's thesis, University of Montana, Missoula.

Rost, Gregory R. and James A. Bailey. 1979. "Distribution of Mule Deer and Elk in Relation to Roads." *Journal of Wildlife Management*. 43(3):634-641.

Schommer, Tim. 1996. "Wildlife Impacts from Opening Primitive Road 3965." Briefing Paper. January 8, 1996. Wallowa-Whitman National Forest. Baker, OR.

Stouder, Scott. 1997. "Sacred Hells Canyon: Last remote trail should remain off-limits to cars, all motor vehicles." Opinion column. 8/22/97. The Oregonian. Portland, OR.

Smith, Dwight R. 1954. *Bighorn Sheep in Idaho - Its Status, Life History and Management*. State of Idaho. Department of Fish and Game. Boise, Idaho.

The Observer. 1997. "Rim shot: House committee approves bill to move Wilderness border." 7/17/97. La Grande, OR.

The Oregonian. 1997. "Road to canyon rim paved with dispute." 8/18/97. Portland, OR.

USDA Forest Service. 1971. Hells Canyon - Seven Devils Scenic Area Map. Ogden, UT.

USDA Forest Service. 1991. "Hells Canyon Wildlife" (brochure). Wallowa-Whitman National Forest. Baker, OR.

USDA Forest Service. 1992. "Hells Canyon Rim Road Open." Press Release, August 11, 1992. Wallowa-Whitman National Forest. Baker, OR.

USDA Forest Service. 1992. Proposal to reopen sections of Lord Flat and Lookout Mountain roads. NEPA document. January 21, 1992. Hells Canyon National Recreation Area. Enterprise, OR.

USDA Forest Service. 1993. Environmental Assessment for the Hells Canyon Overlook II Recreation Development. Wallowa-Whitman National Forest. Baker, OR.

USDA Forest Service. 1995. Hells Canyon National Recreation Area Newsletter. Summer, 1995. Hells Canyon National Recreation Area. Enterprise, OR.

USDA Forest Service. 1996. Draft Environmental Impact Statement: Hells Canyon National Recreation Area

Comprehensive Management Plan. Wallowa-Whitman National Forest. Baker, OR.

USDA Forest Service. "Lord Flat and Lookout Mountain Roads in Hells Canyon Wilderness." Briefing Paper. Wallowa-Whitman National Forest. Baker, OR.

USDI Bureau of Land Management. 1995. Mountain Sheep Ecosystem Management Strategy in the 11 Western States and Alaska.

Van Dyke, Walter A., Alan Sands, Jim Yoakum, Allan Polenz and James Blaisdell. 1983. *Wildlife Habitats in Managed Range Lands - The Great Basin of Southeastern Oregon - Bighorn Sheep*. General Technical Report PNW-159. USDA Forest Service.

Watson, Alan and Peter Landress. 1998. "Changing Wilderness Values." Aldo LeopoldWilderness Research Institute Paper. USDA Forest Service, Missoula, MT.

Weaver, William and Danny Hagans. "Techniques and costs for effective road closure." Pacific Watershed Associates. Arcata, CA.

Witmer, Gary W. and David S. deCalesta. 1985. "Effect of forest roads on habitat use by Roosevelt elk." *Northwest Science*. 59(2):122-125.